

FIG. 1
(PRIOR ART)

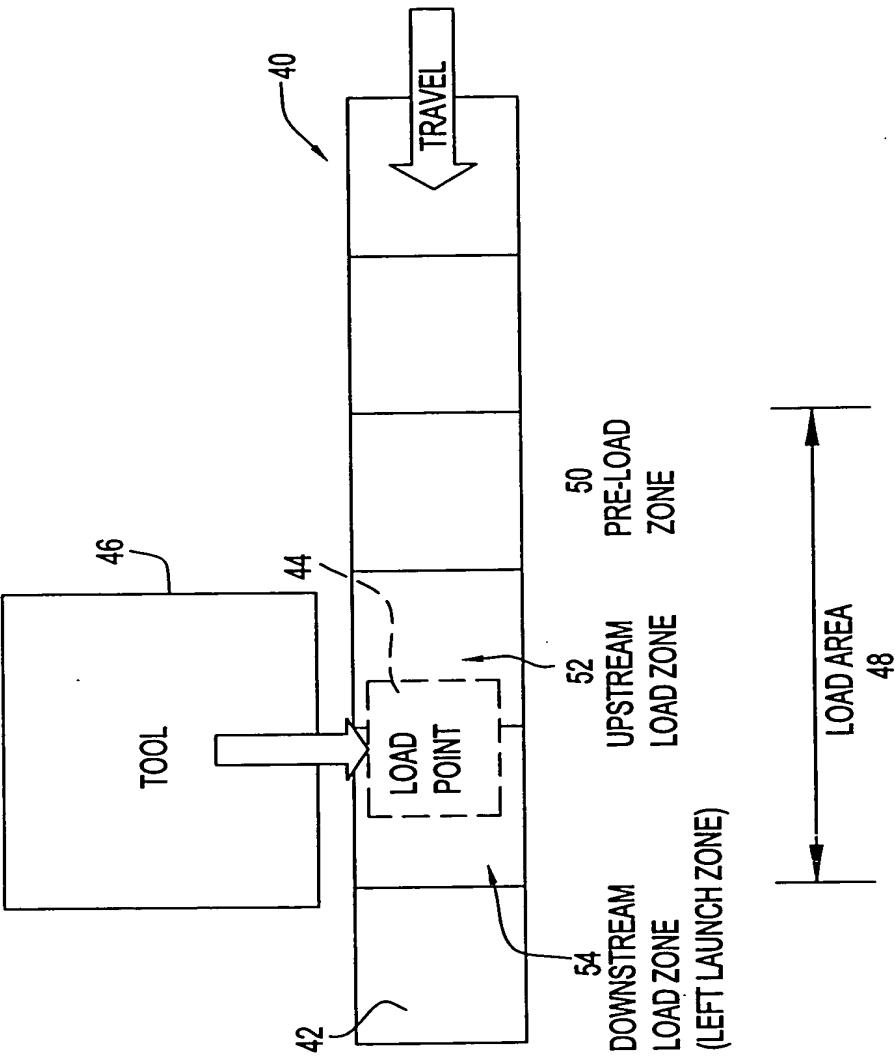


FIG. 2A

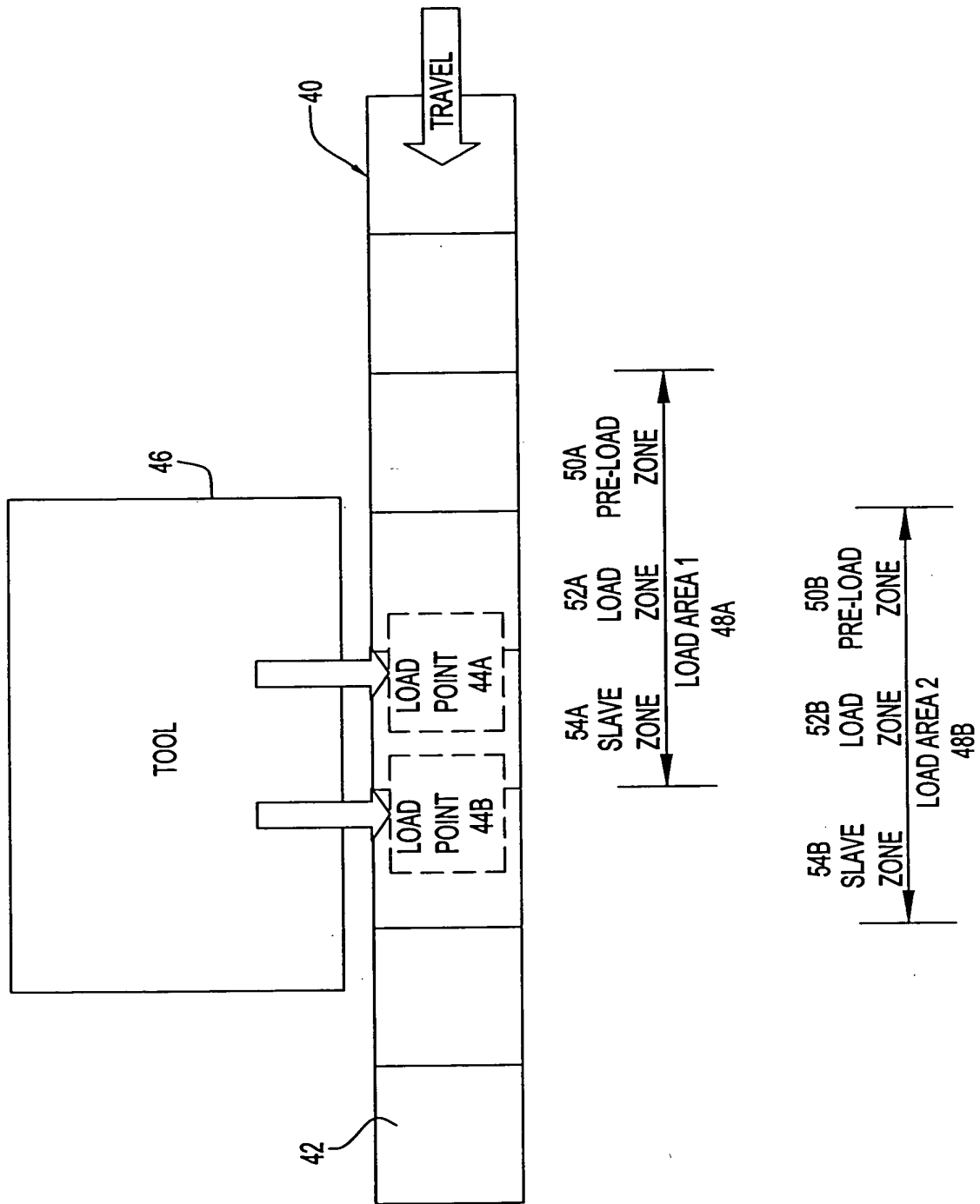


FIG. 2B

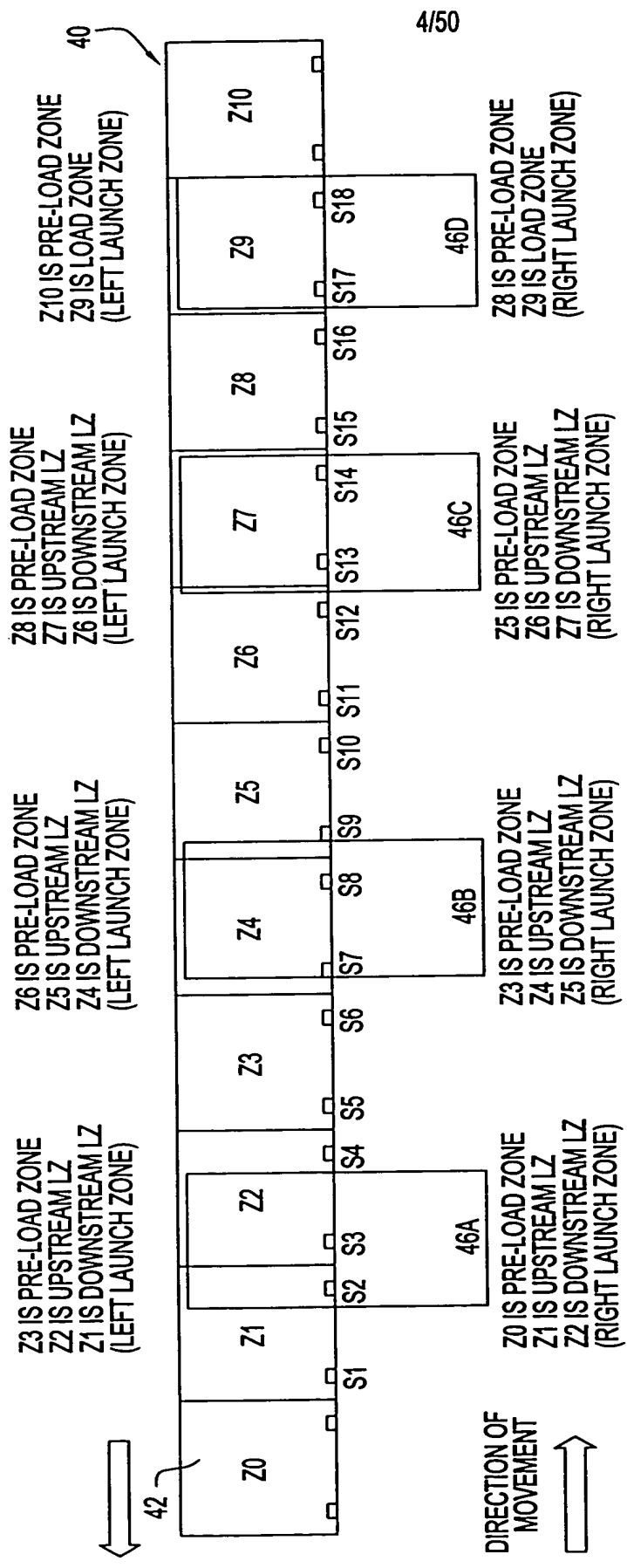


FIG. 2C

NEIGHBORHOOD FOR A RAIL ZONE

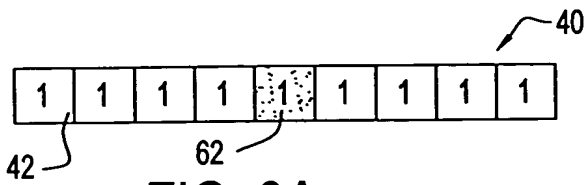
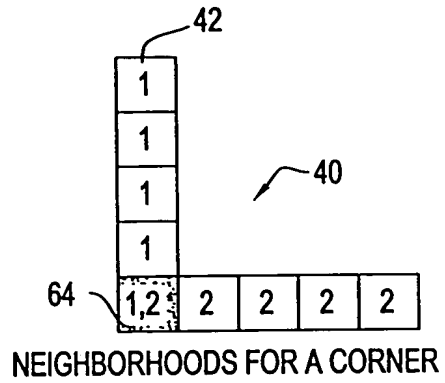


FIG. 3A



NEIGHBORHOODS FOR A CORNER

FIG. 3B

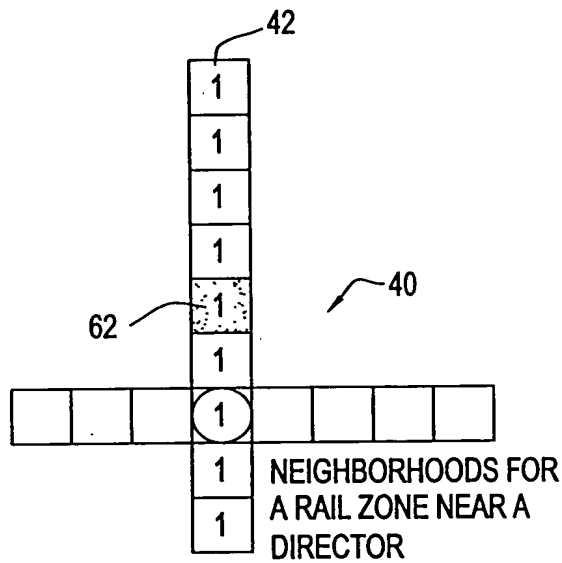


FIG. 3C

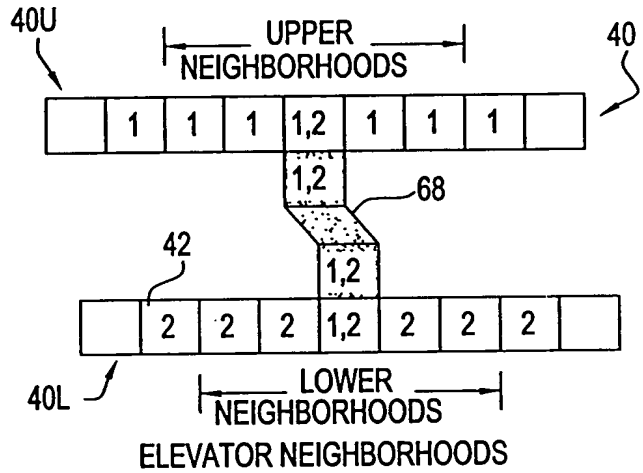


FIG. 3D

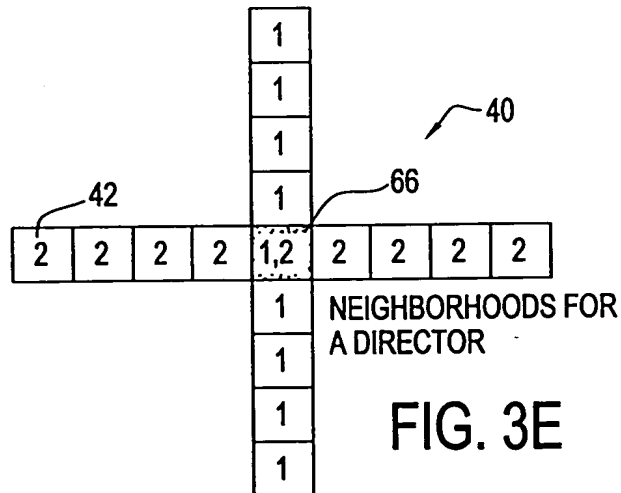
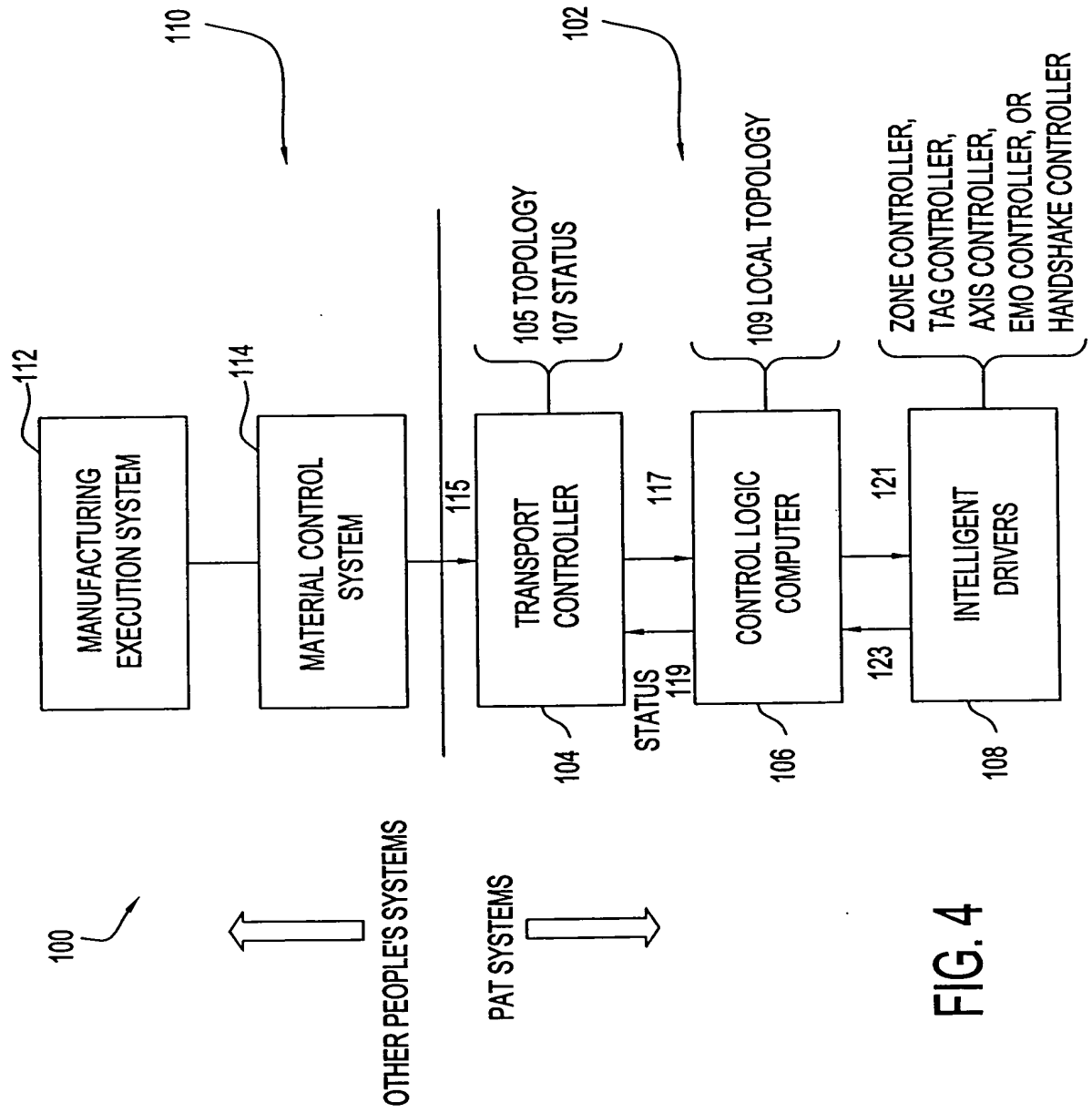


FIG. 3E



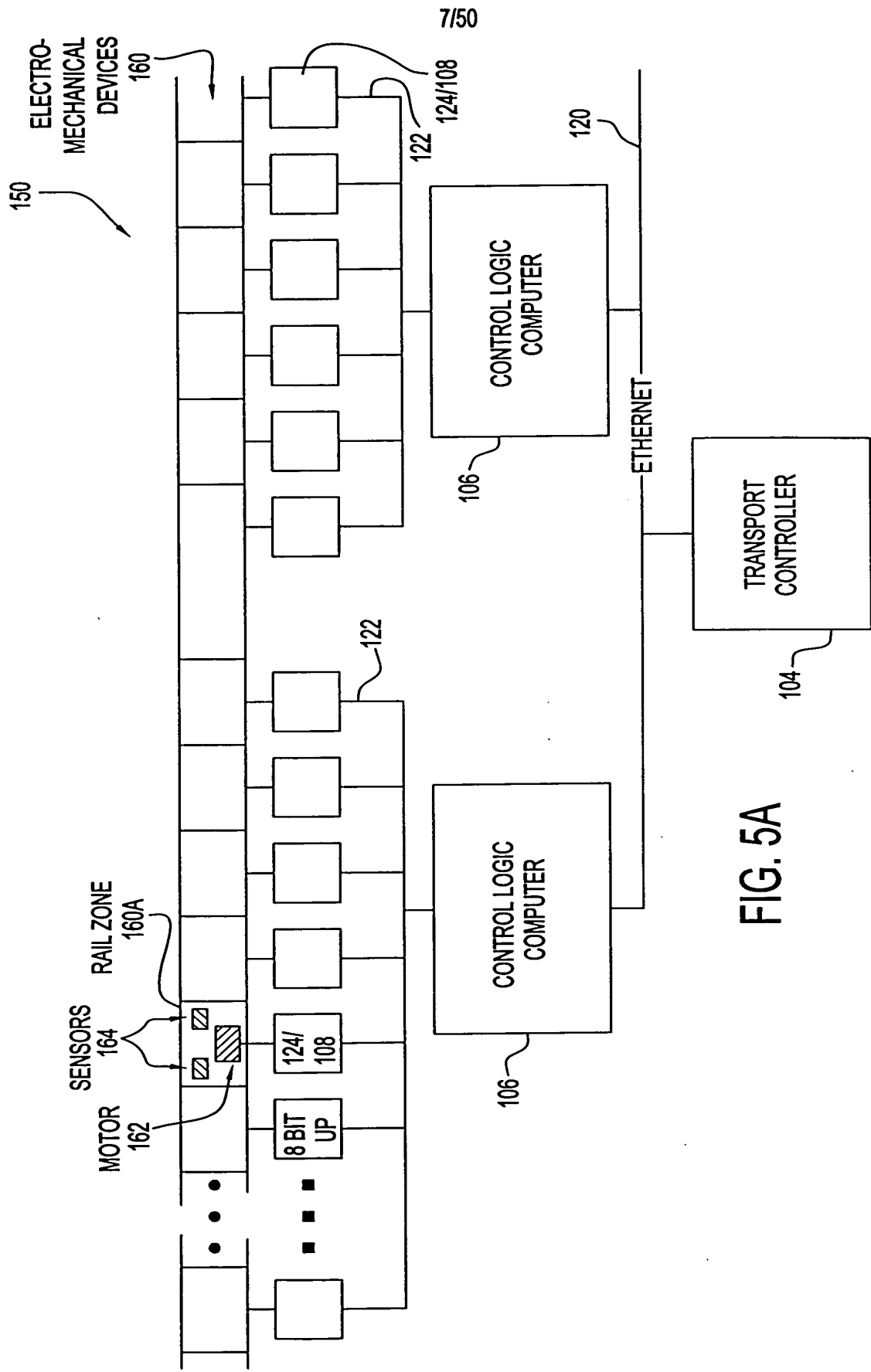


FIG. 5A

CONVEYER RAIL WITH INTELLIGENT DRIVERS SHOWN

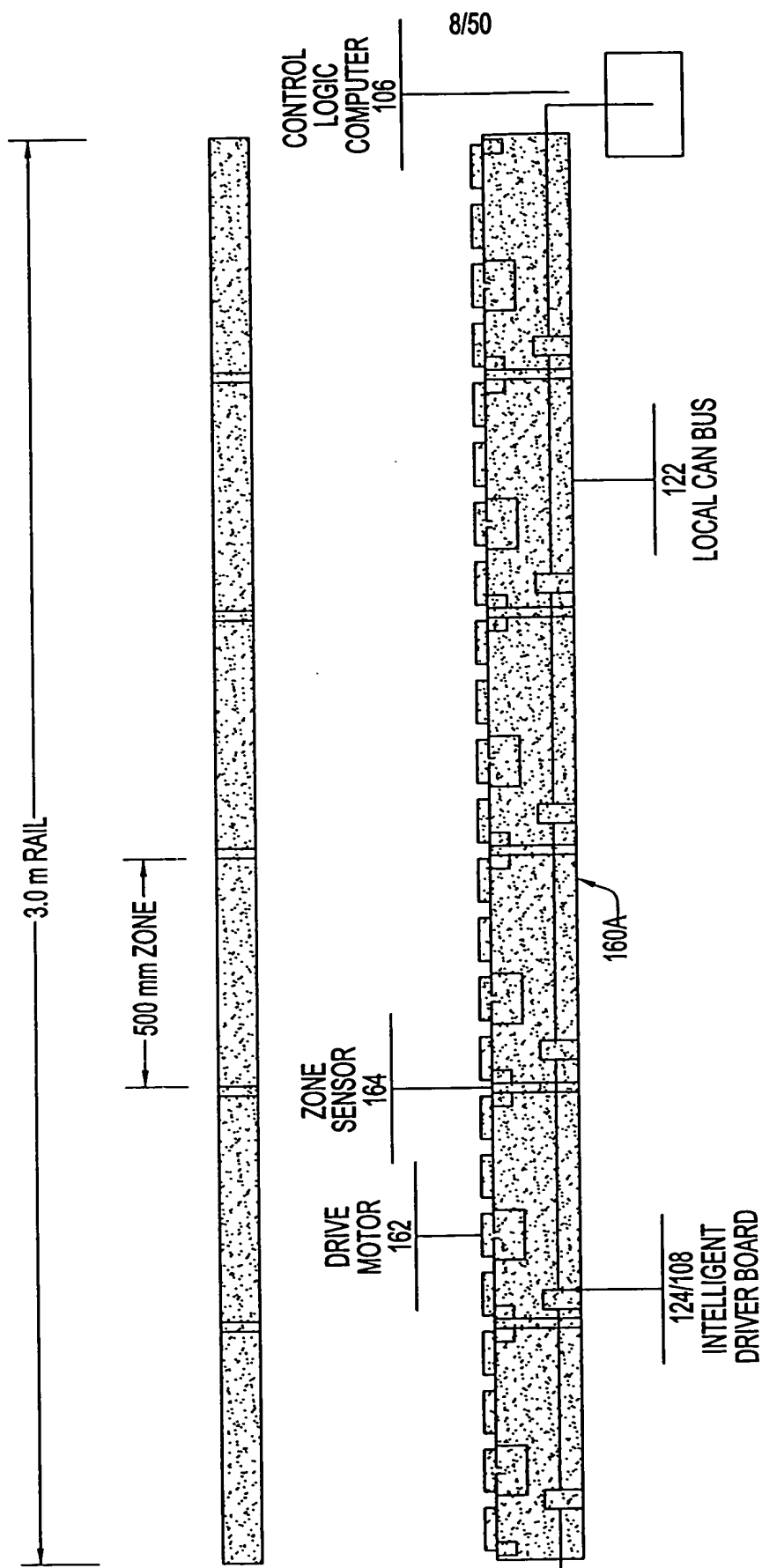


FIG. 5B

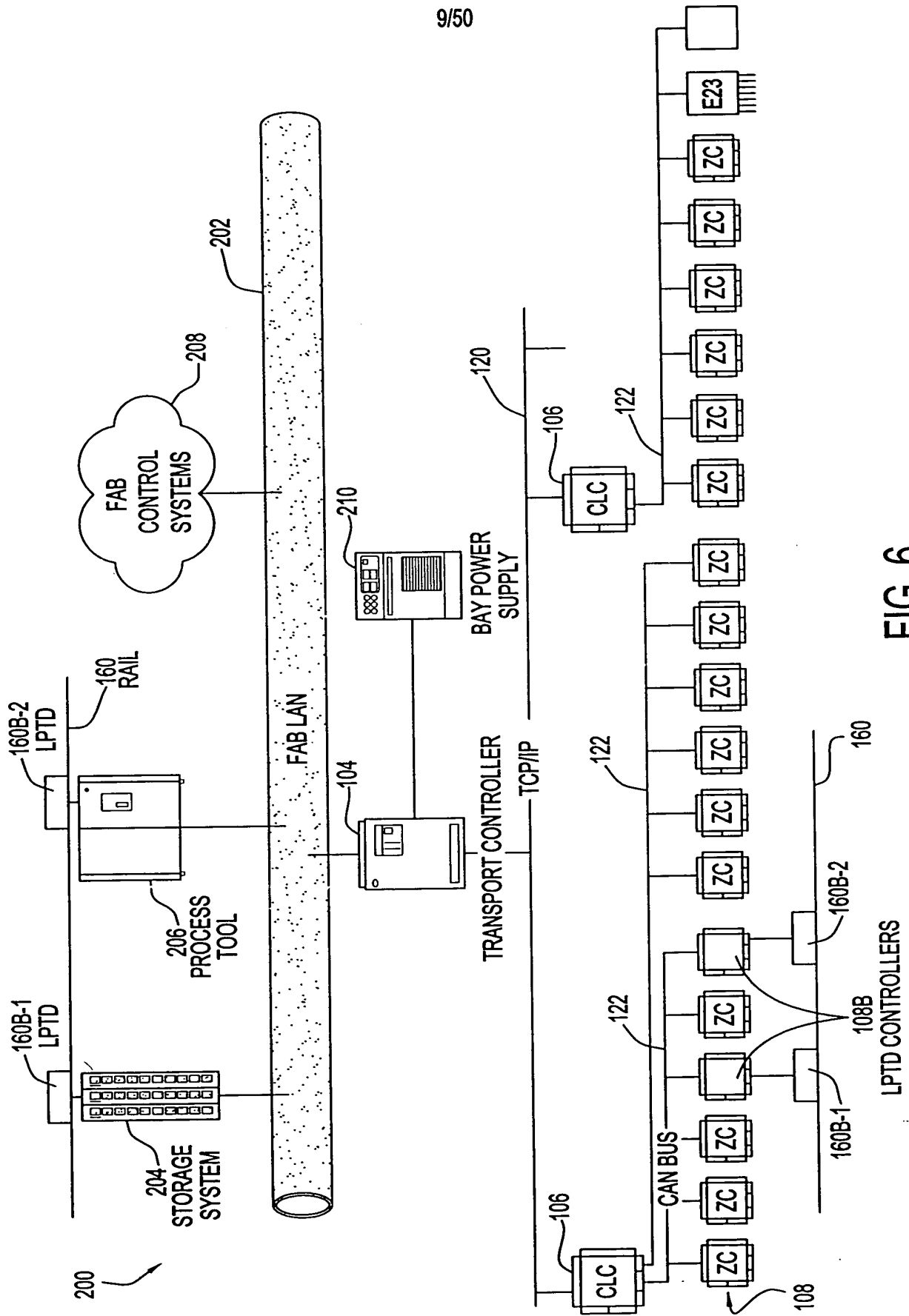


FIG. 6

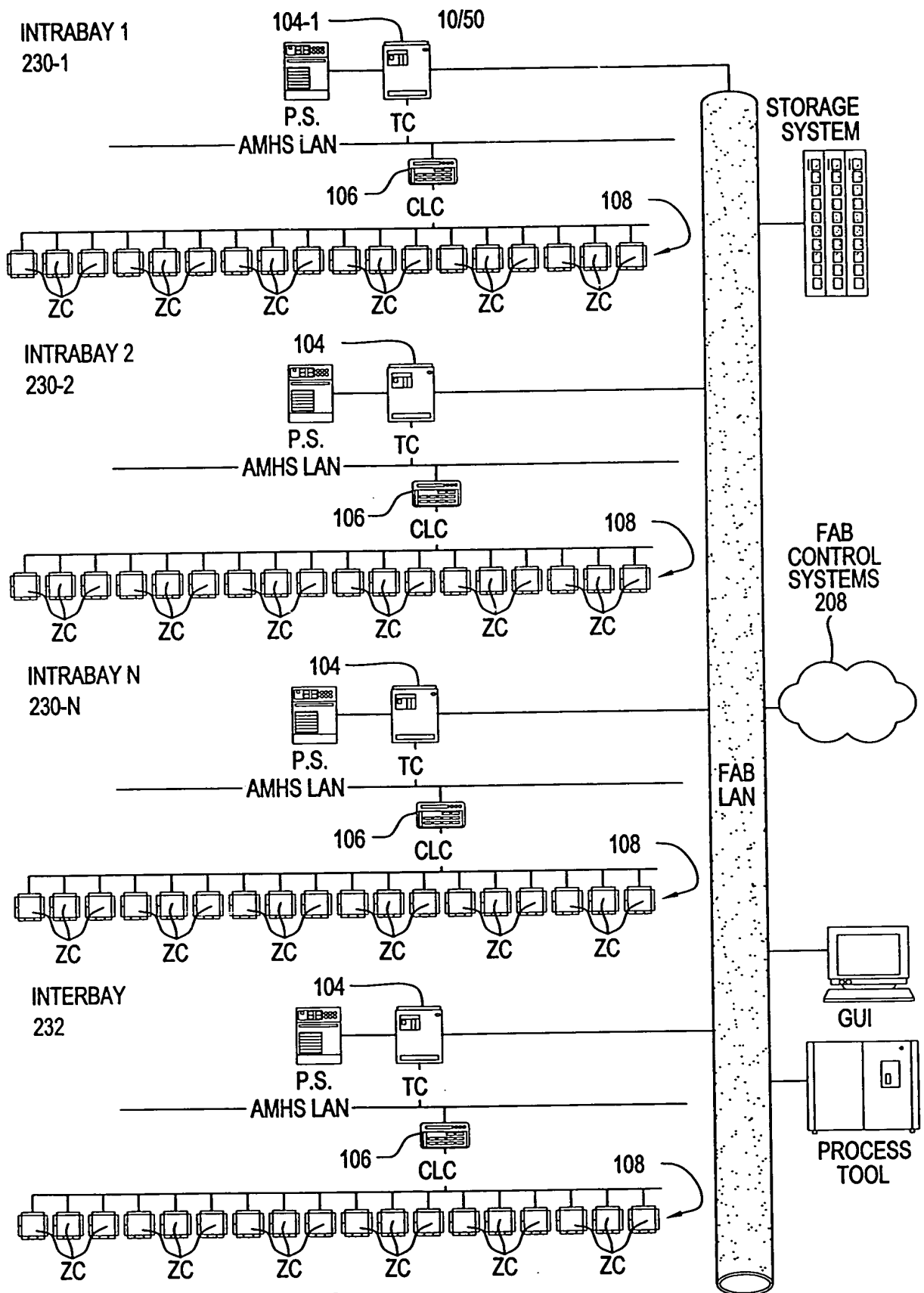


FIG. 7

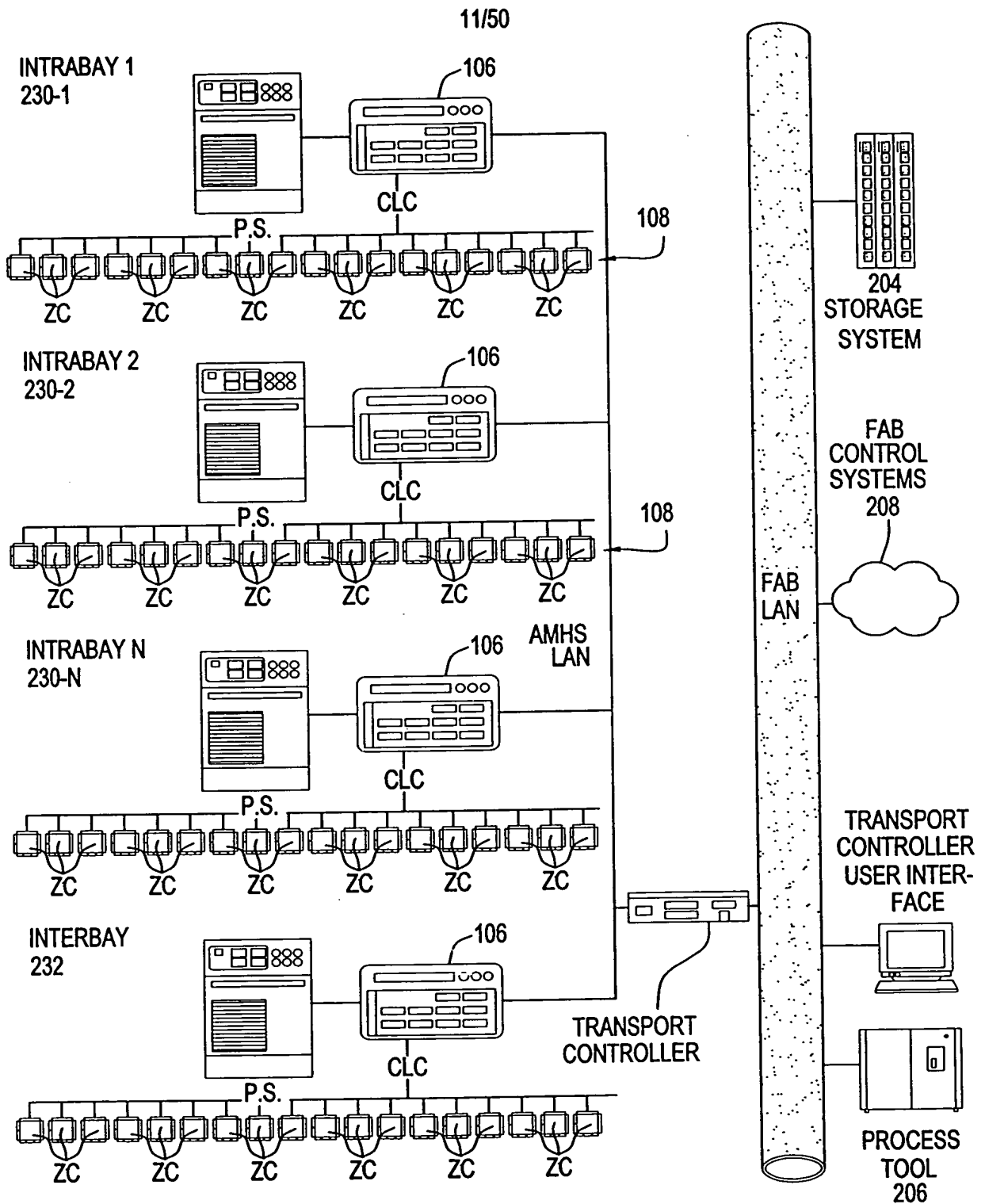


FIG. 8

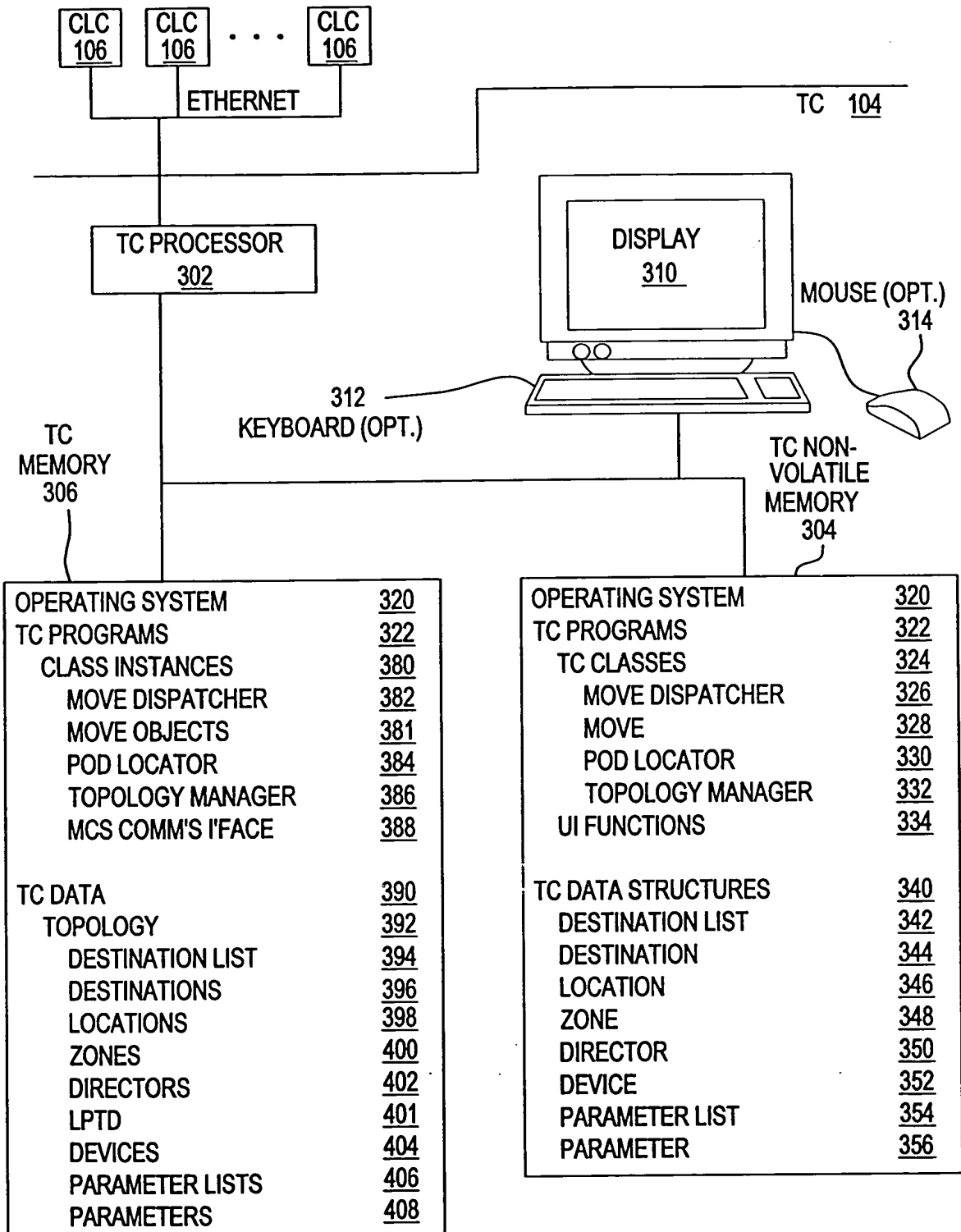


FIG. 9A

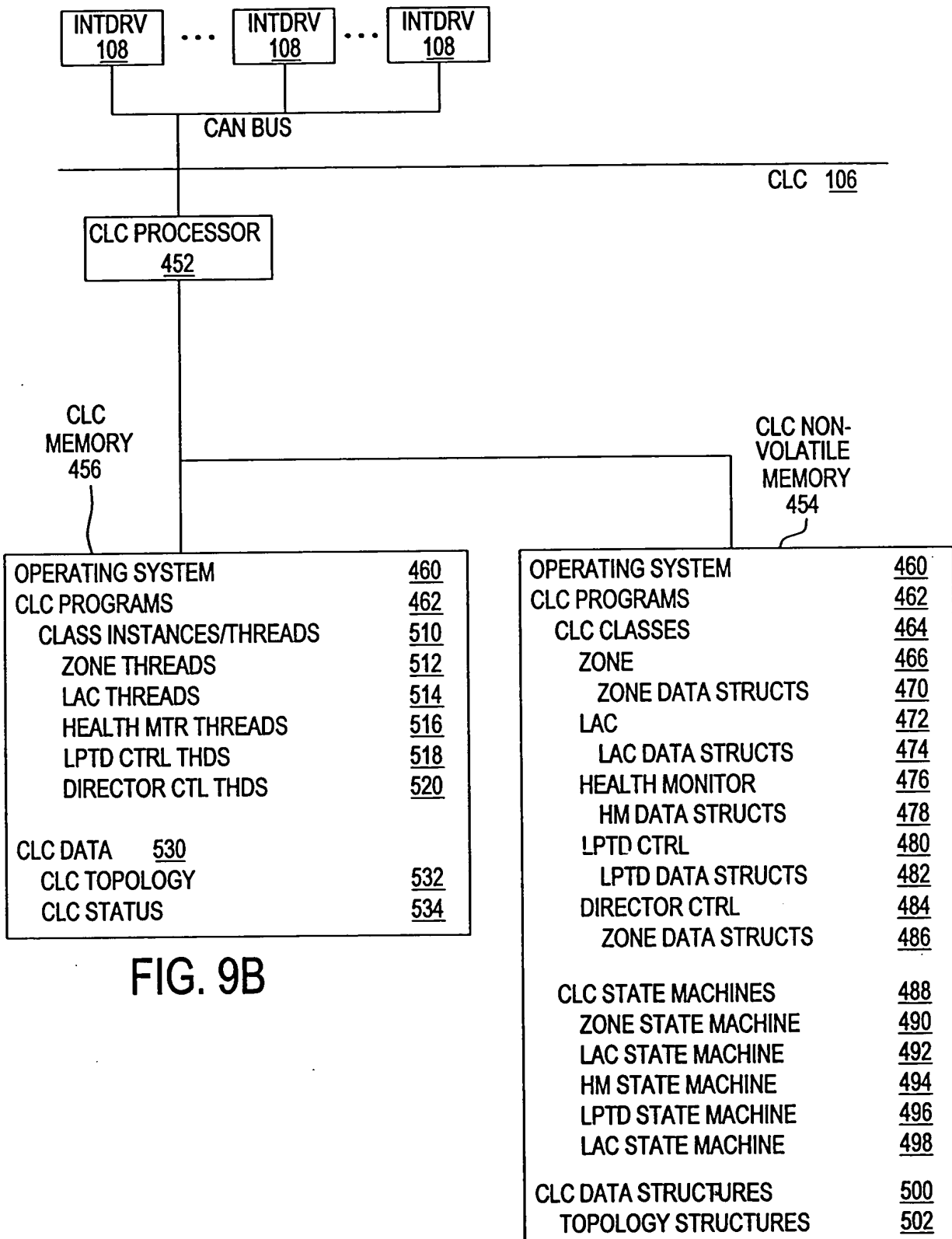
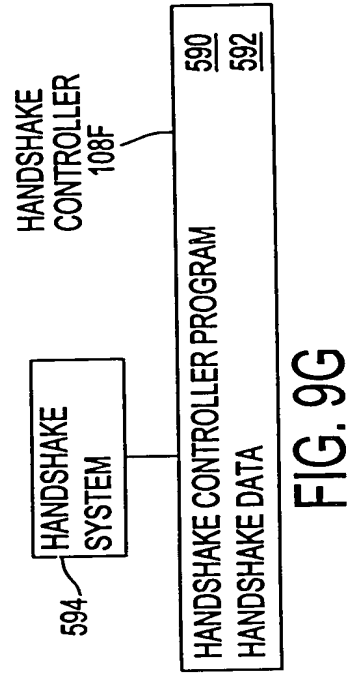
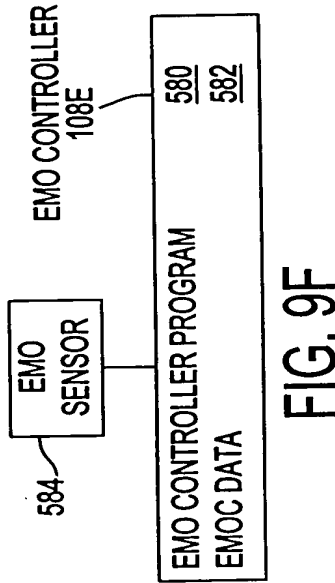
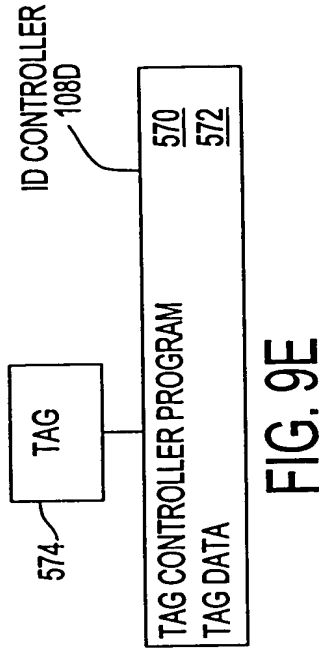
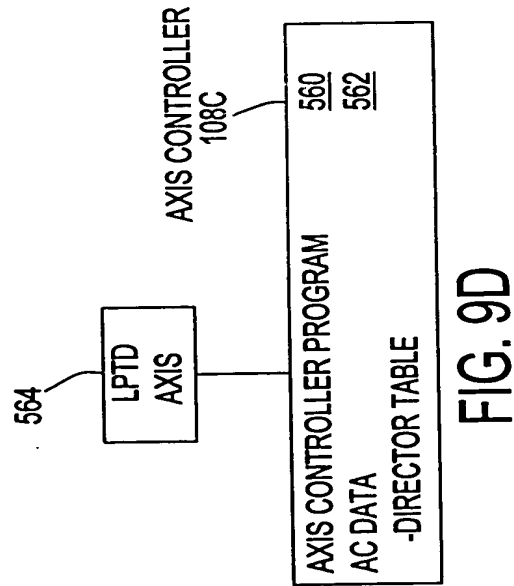
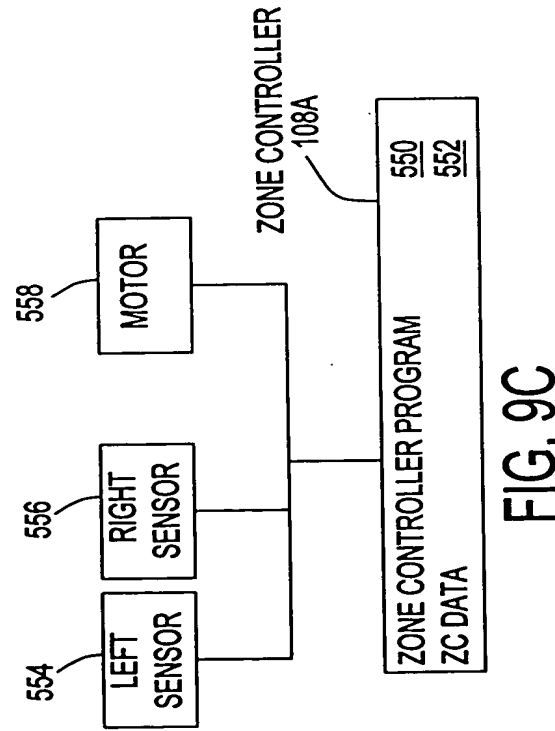


FIG. 9B



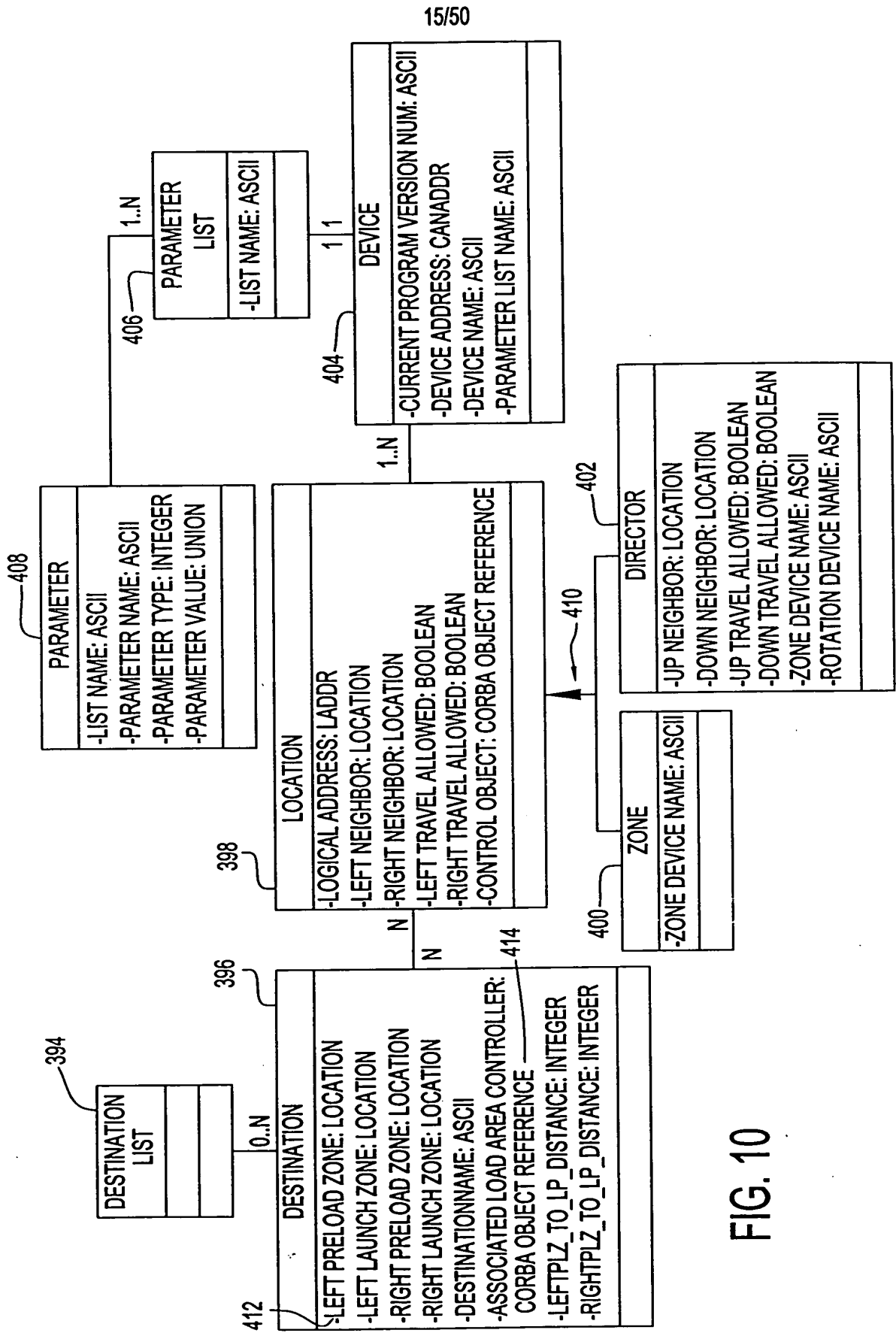


FIG. 10

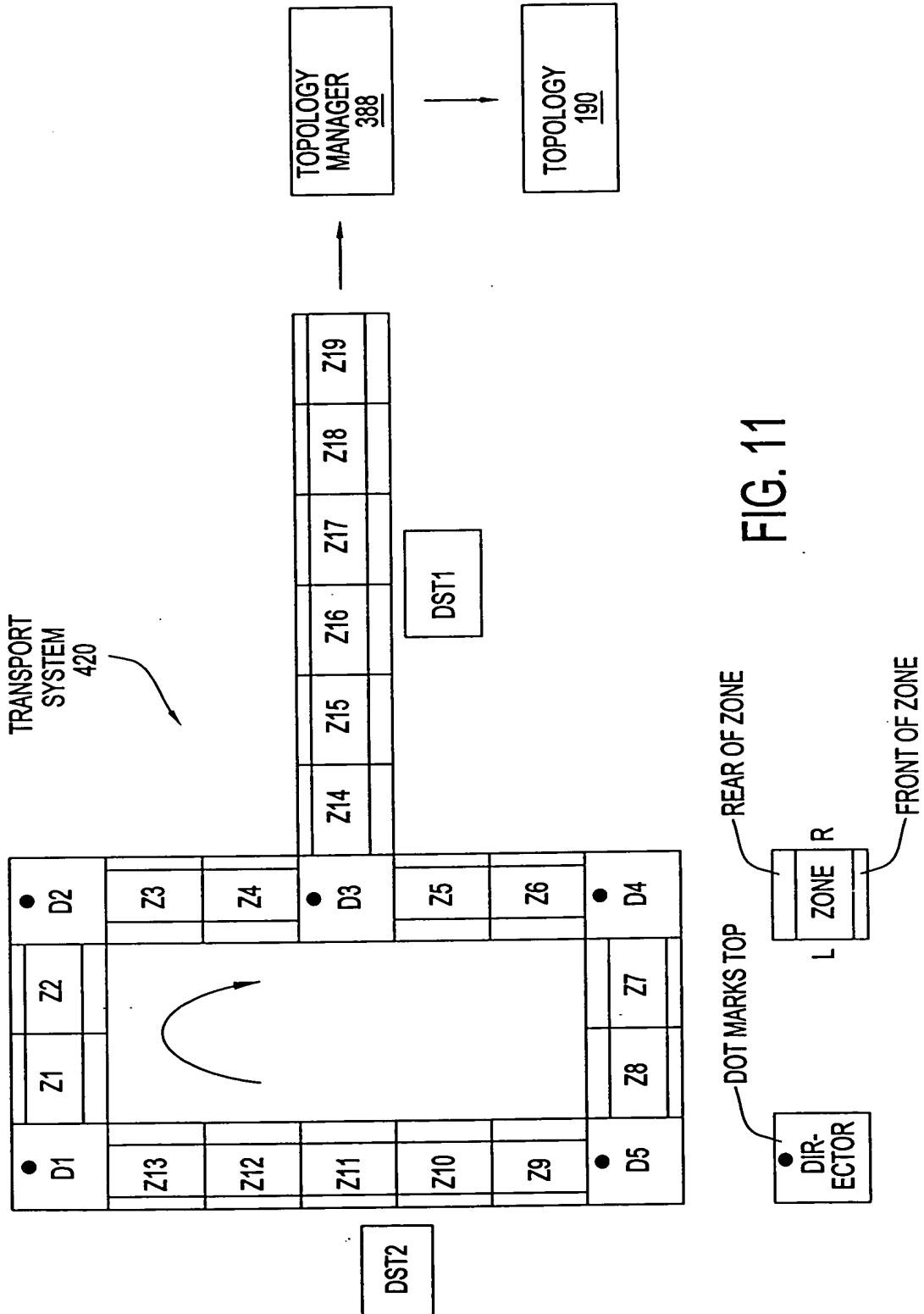


FIG. 11

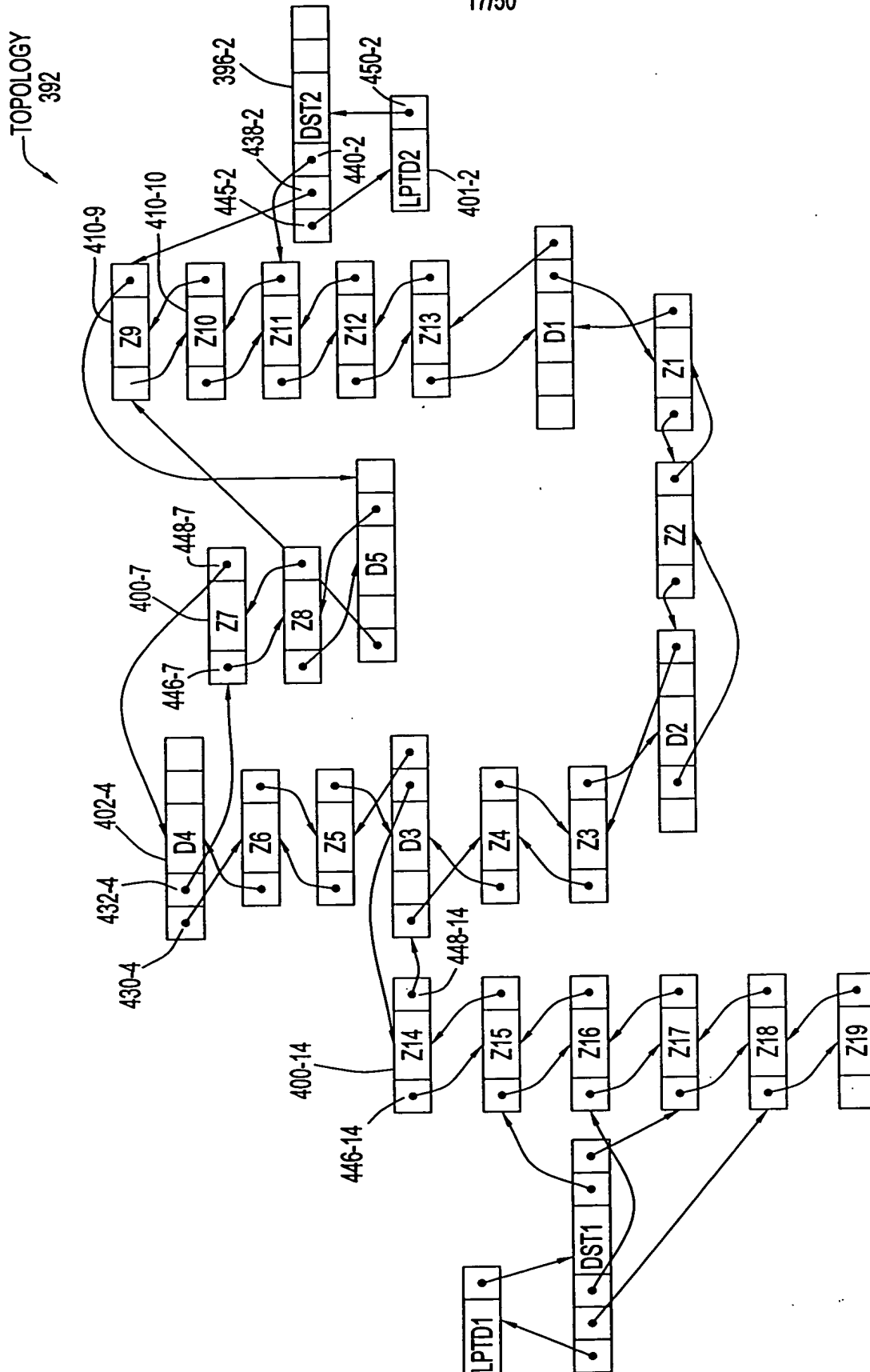


FIG. 12A

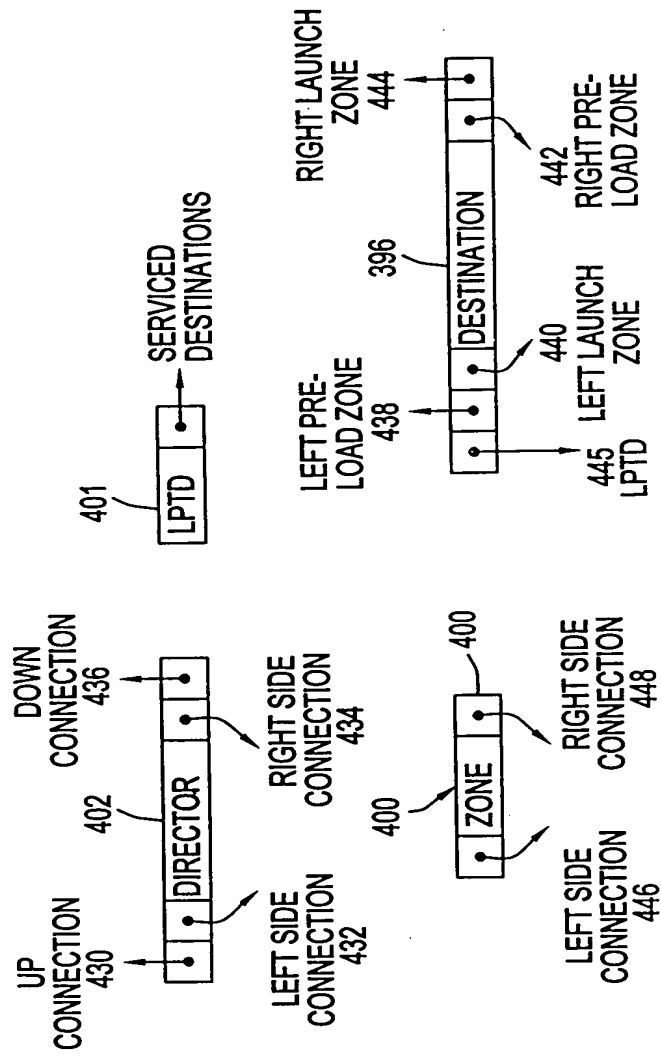
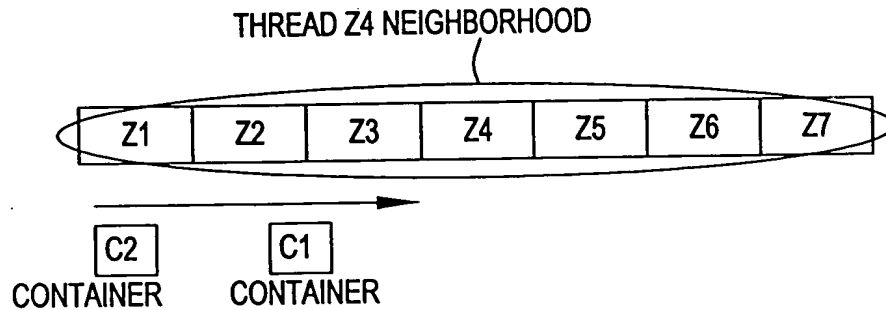


FIG. 12B



ZONE Z4 THREAD 512-4

ZONE STATE MACHINE	<u>620</u>
ZONE THREAD METHODS	<u>622</u>
ZONE Z4 DATA	<u>624</u>
NEIGHBOR STATUS:	<u>626</u>
ZONE Z1 STATUS	<u>628</u>
STATUS {CARRIER EXITING, CARRIER EXITED,	
CARRIER STOPPED, CARRIER REMOVED,	
ZONE AVAILABLE, ZONE RESERVED};	
MAXIMUM SPEED;	<u>630</u>
ZONE Z2 STATUS	<u>632</u>
ZONE Z3 STATUS	<u>634</u>
ZONE Z5 STATUS	<u>636</u>
ZONE Z6 STATUS	<u>638</u>
ZONE Z7 STATUS	<u>640</u>
CONTAINERS QUEUE	<u>642</u>
CONTAINER C1	<u>644</u>
CONTAINER C2	<u>646</u>
NEAREST CONTAINER PTR (=C1)	<u>648</u>
...	
DOWNSTREAM SPEED TABLE;	<u>670</u>
UPSTREAM SPEED COMMAND;	<u>672</u>
MAXIMUM SPEED;	<u>674</u>
SPEED TABLE RULES)	<u>676</u>

FIG. 13

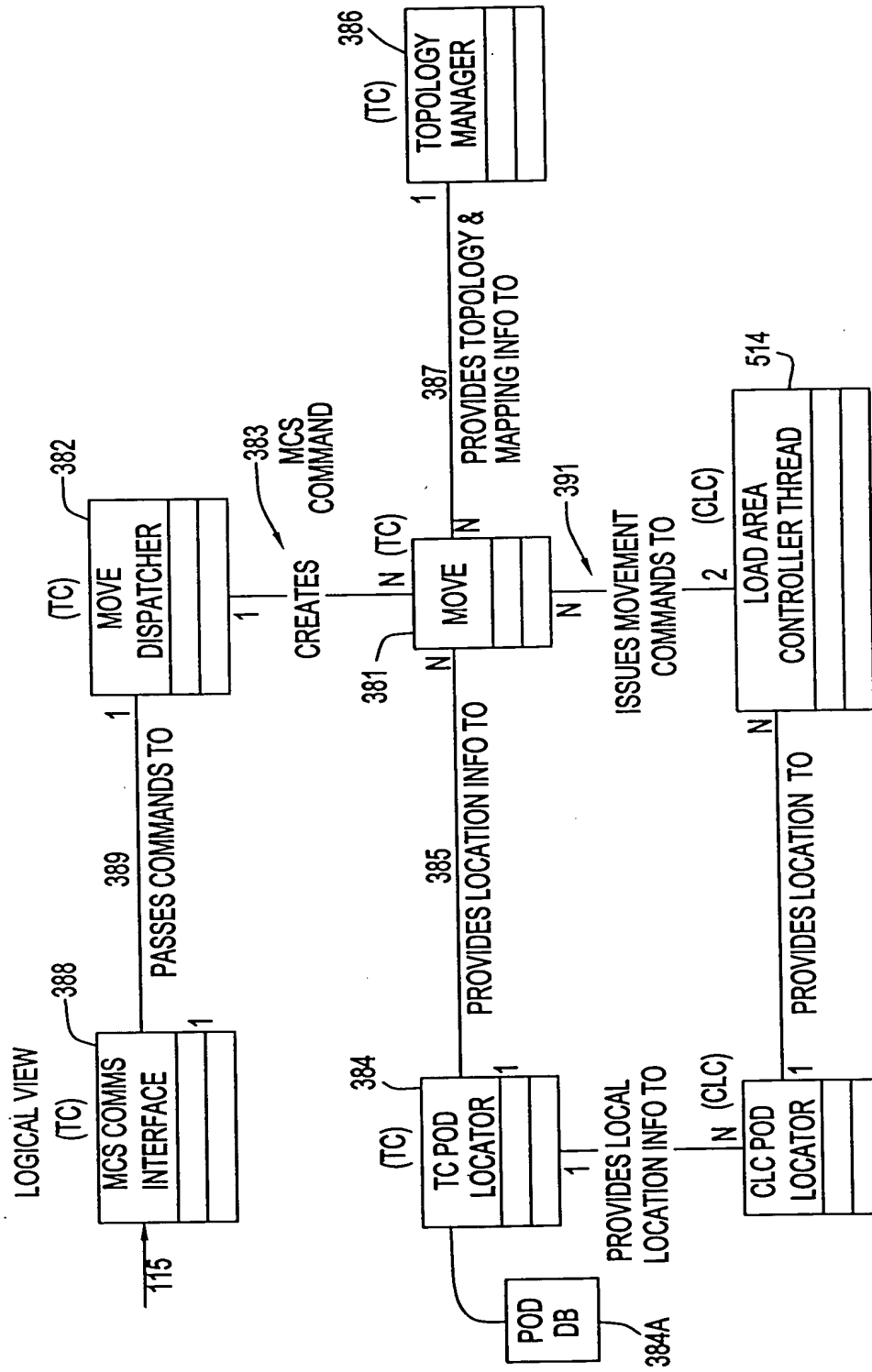


FIG. 14

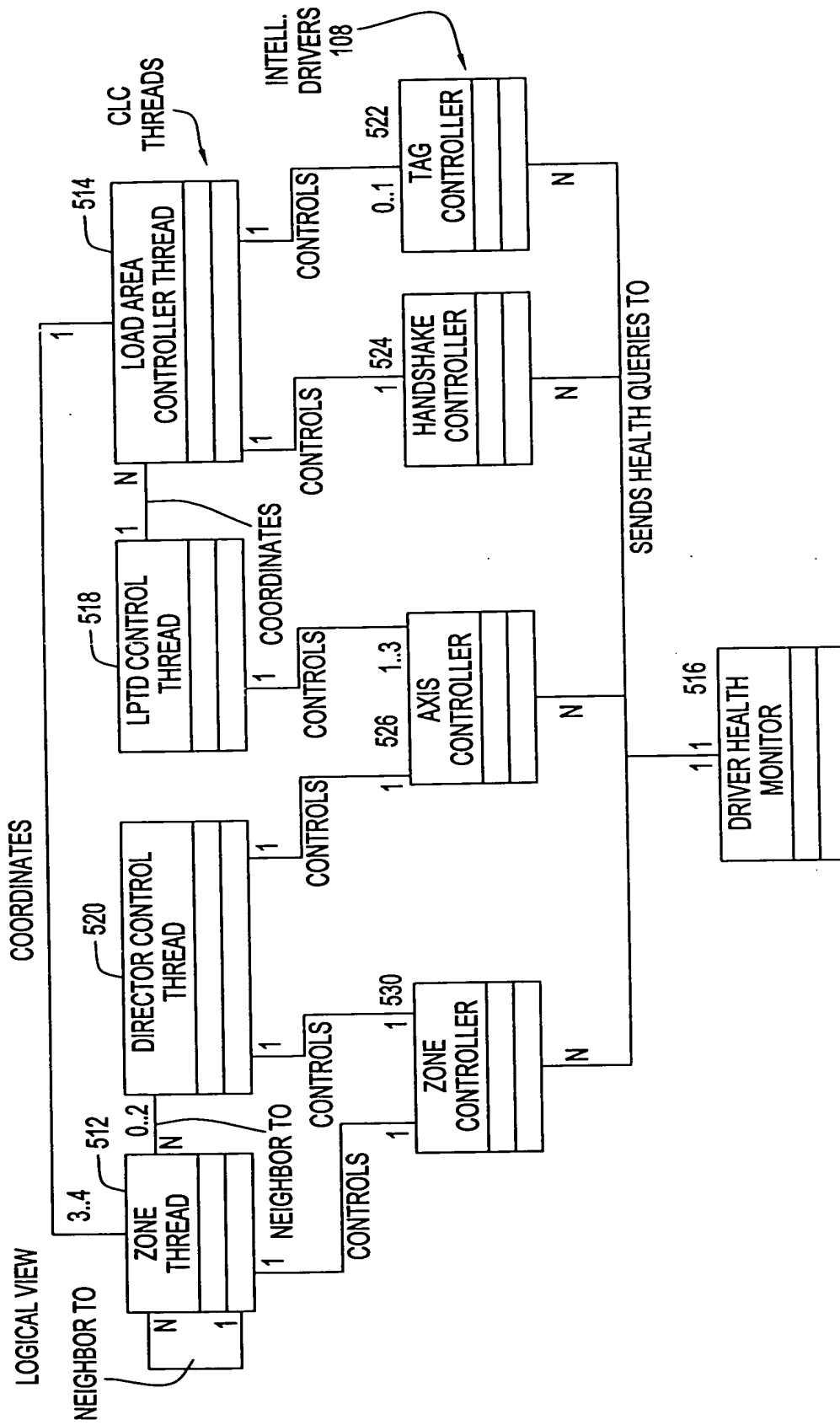
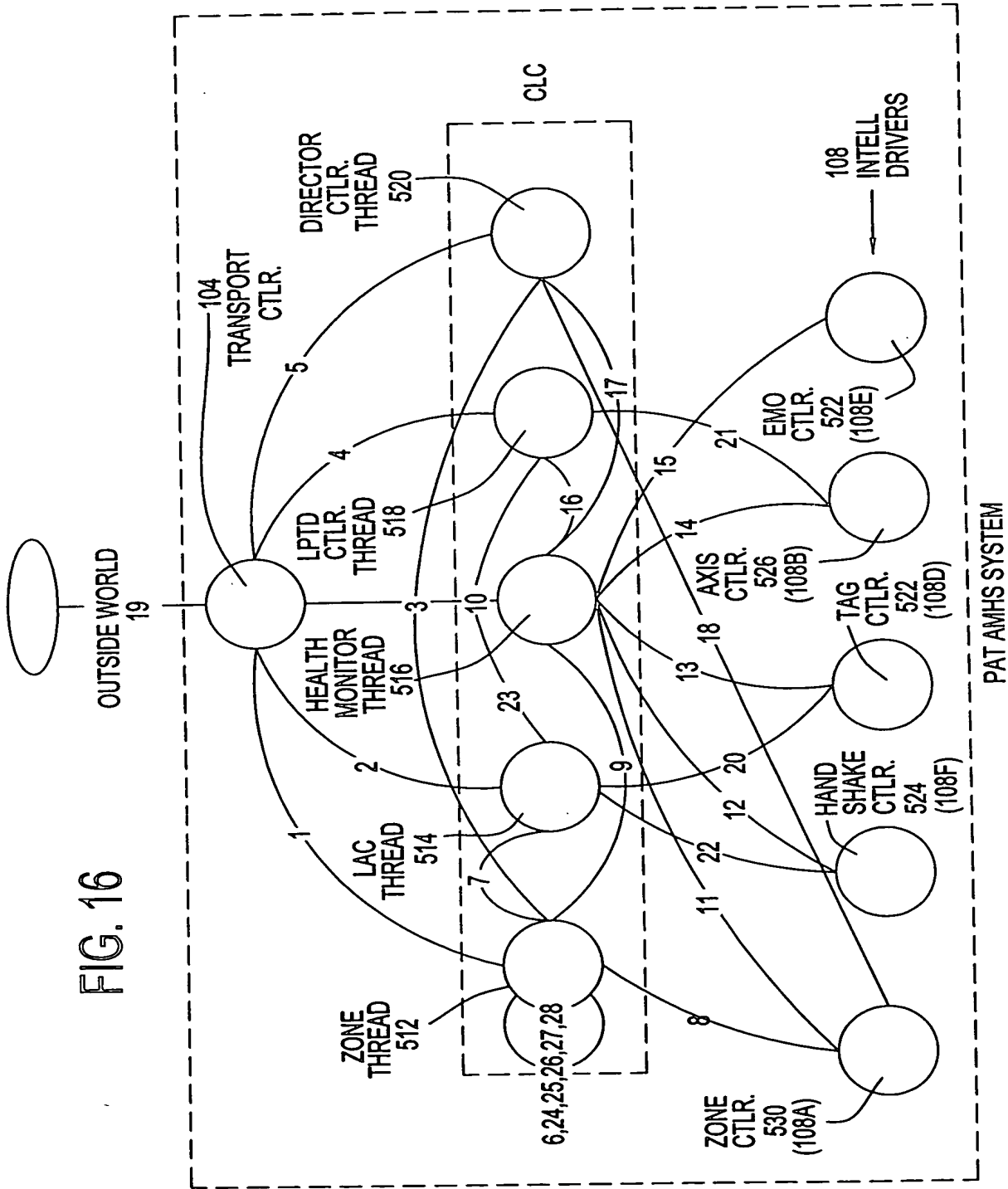


FIG. 15



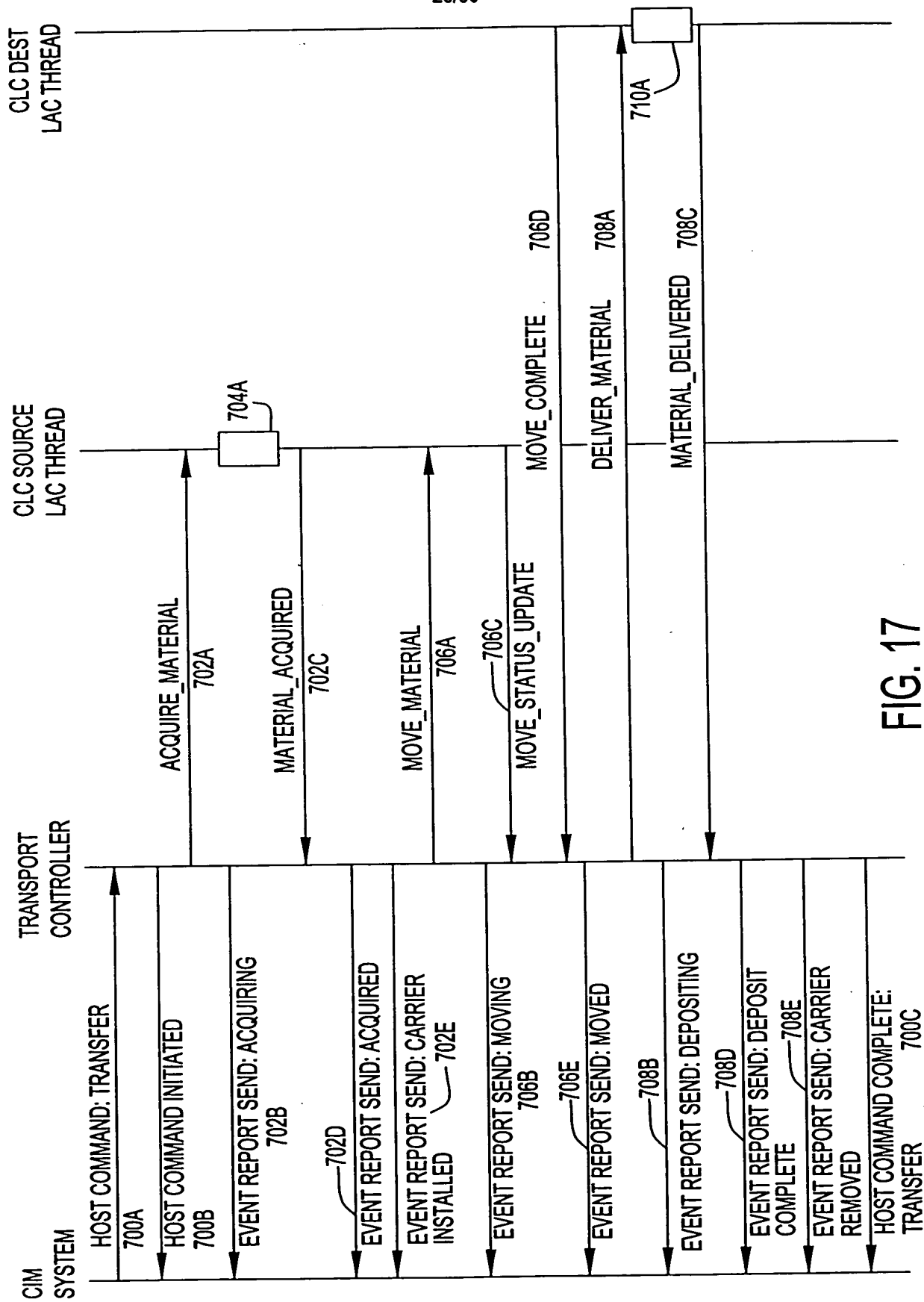


FIG. 17

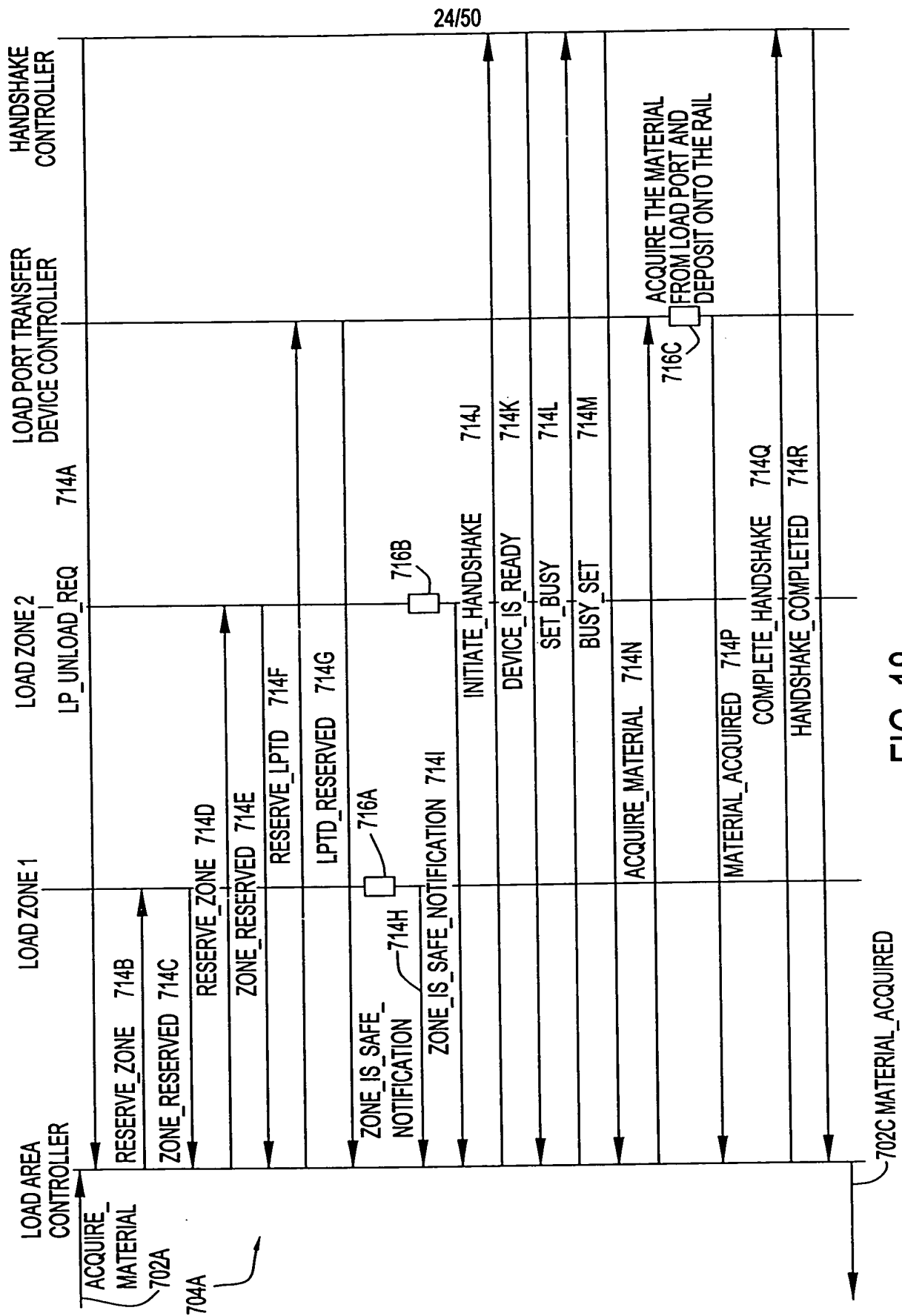


FIG. 18

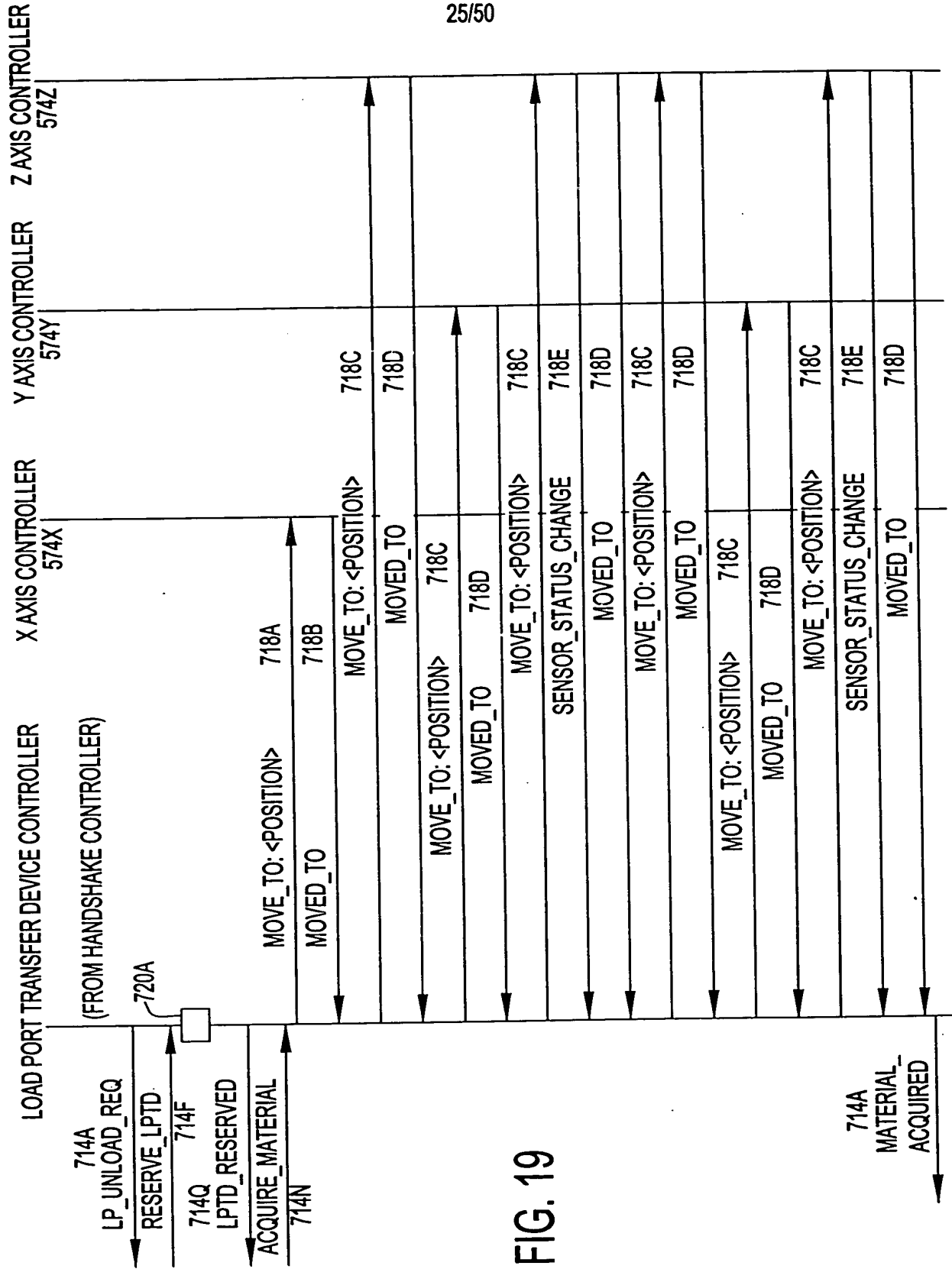


FIG. 19

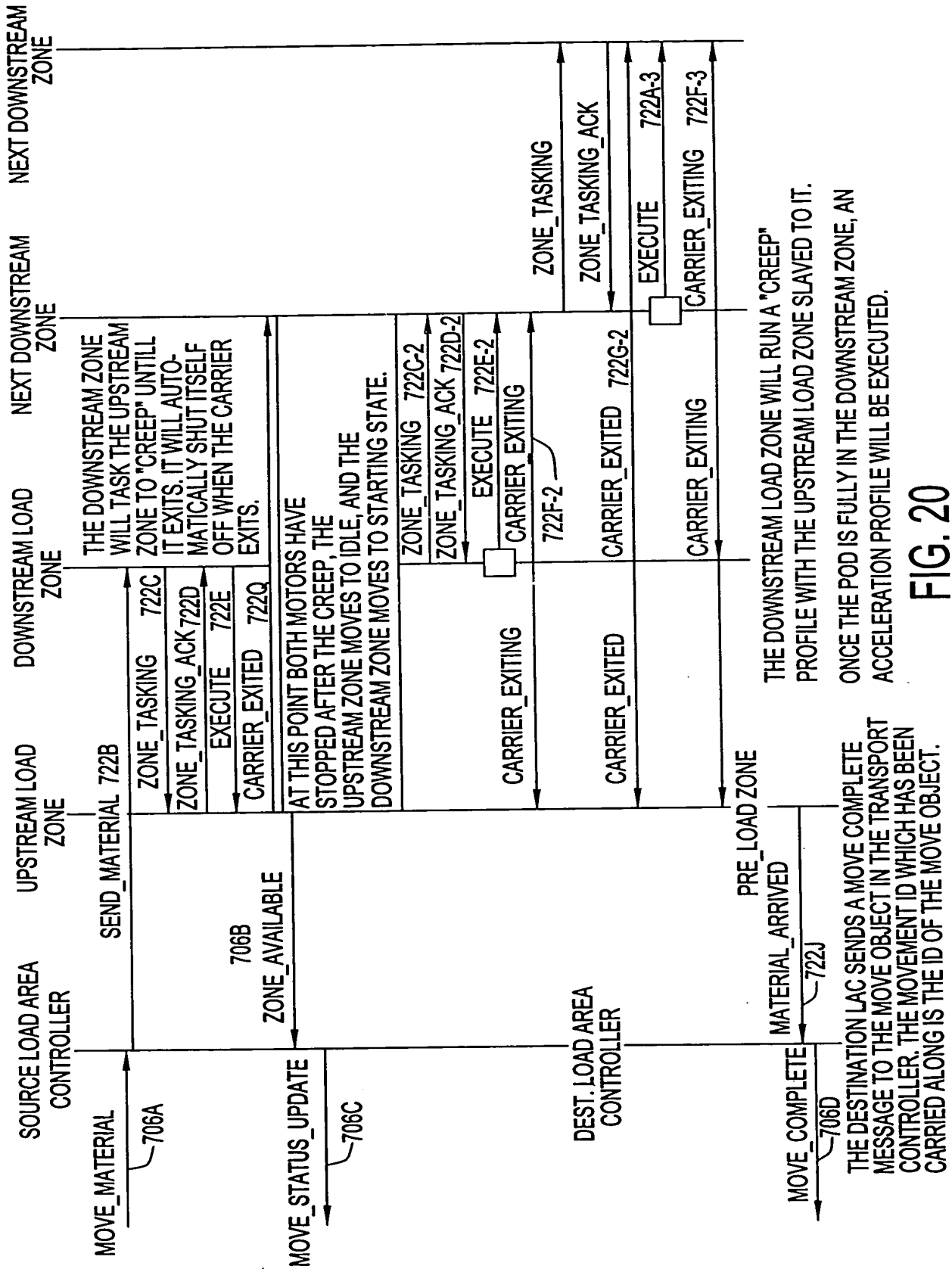
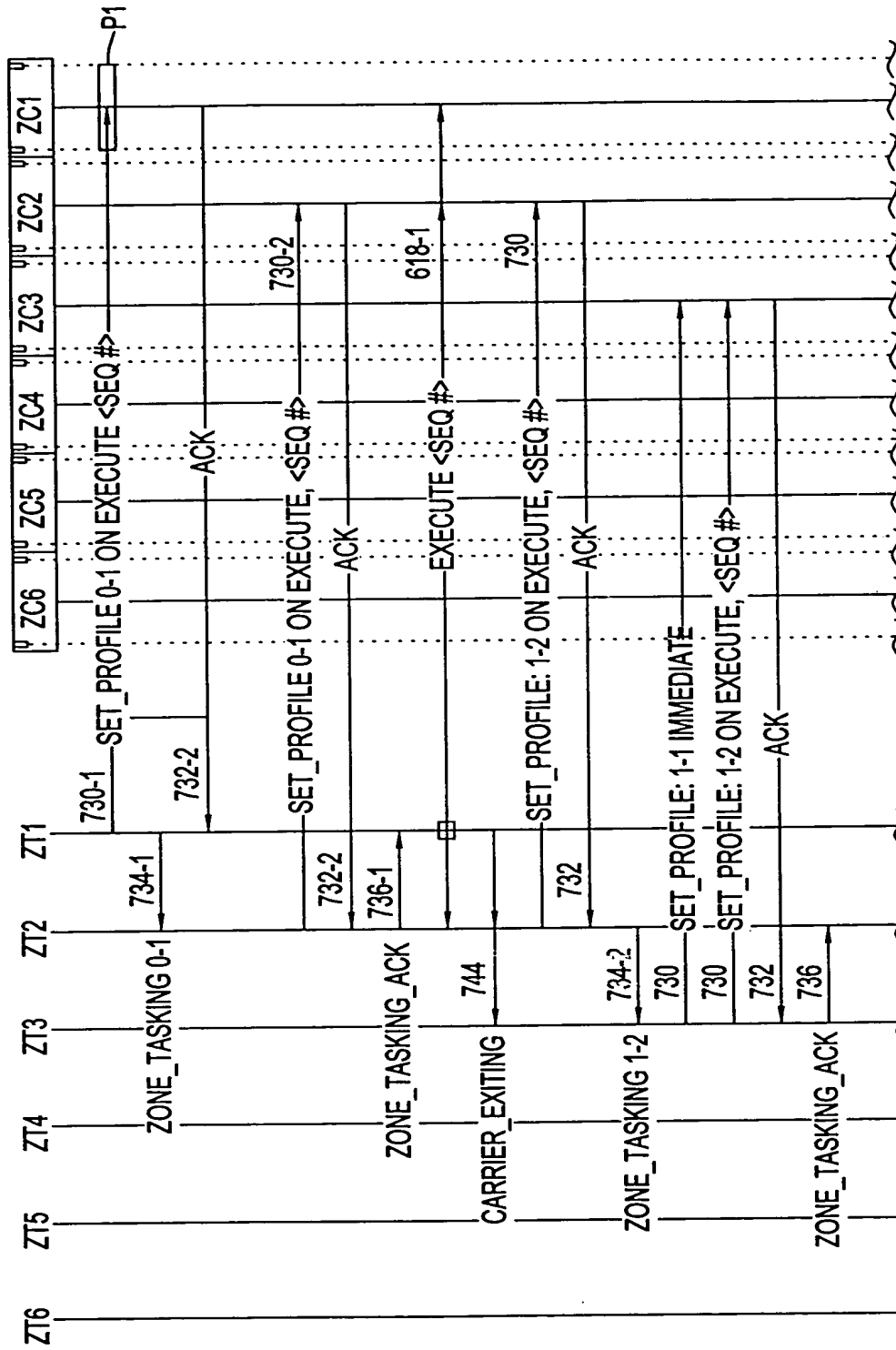
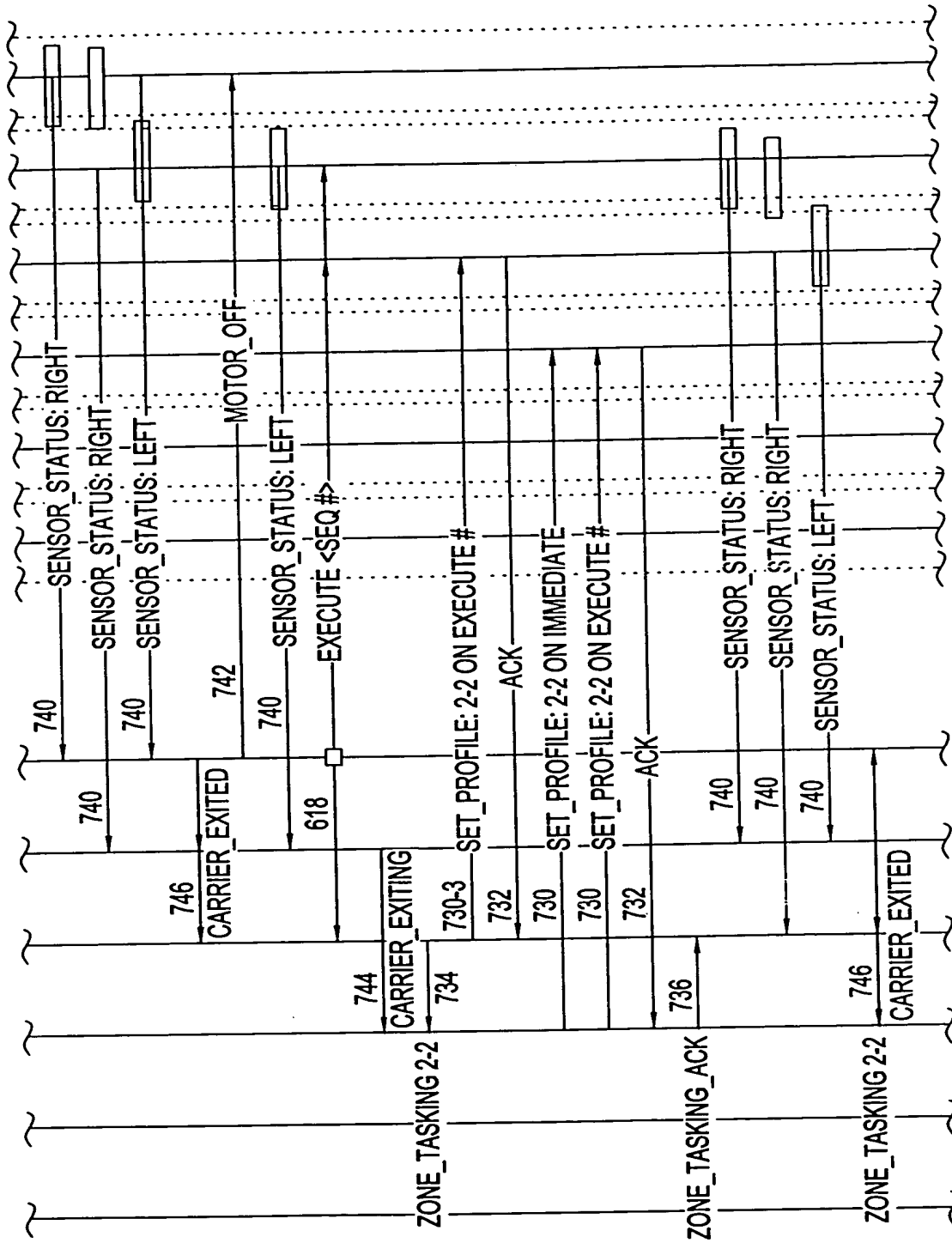


FIG. 20



CONTINUED TO FIG. 21B

FIG. 21 A



CONTINUED TO FIG. 21C

FIG. 21B

CONTINUED FROM FIG. 21B

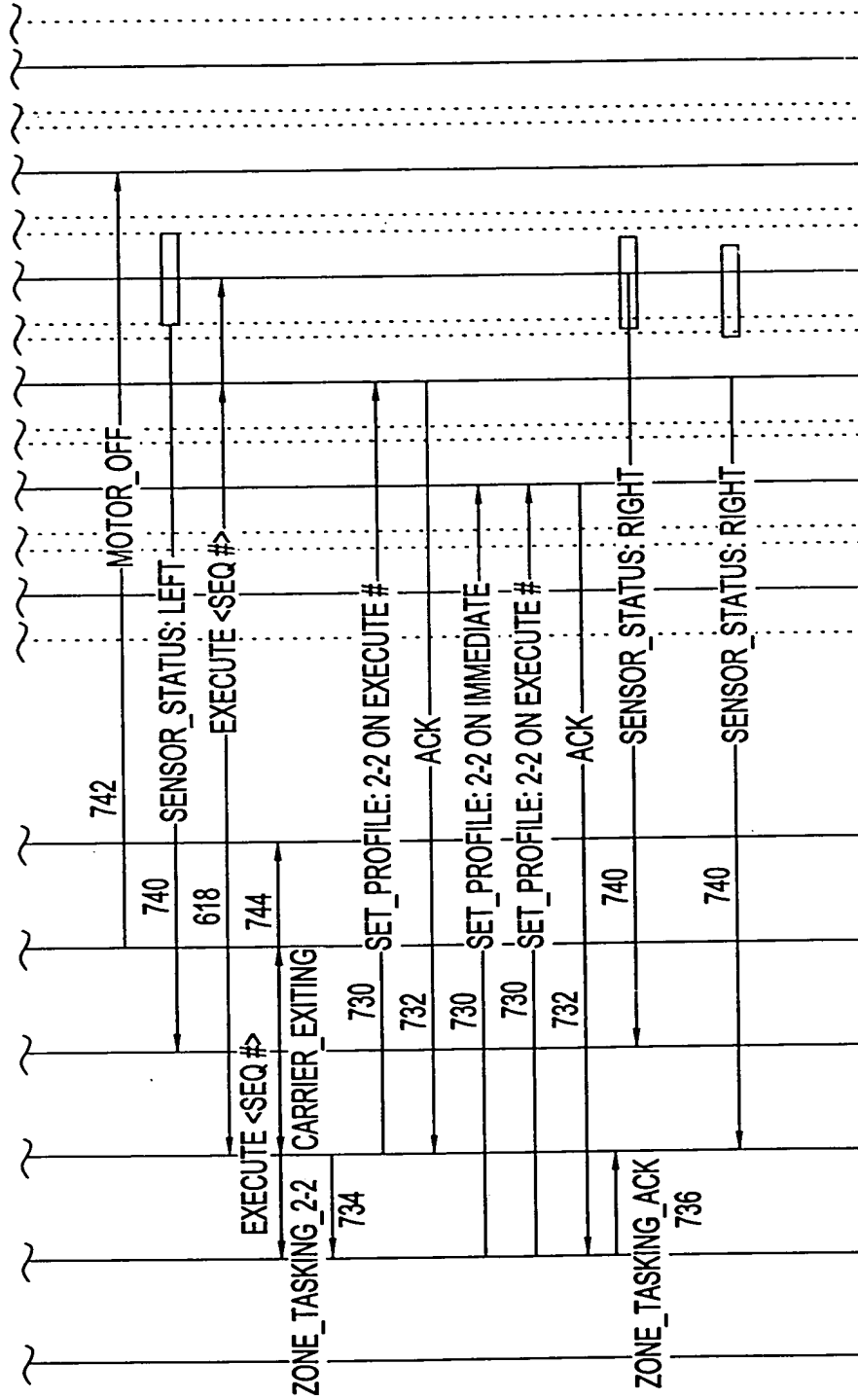
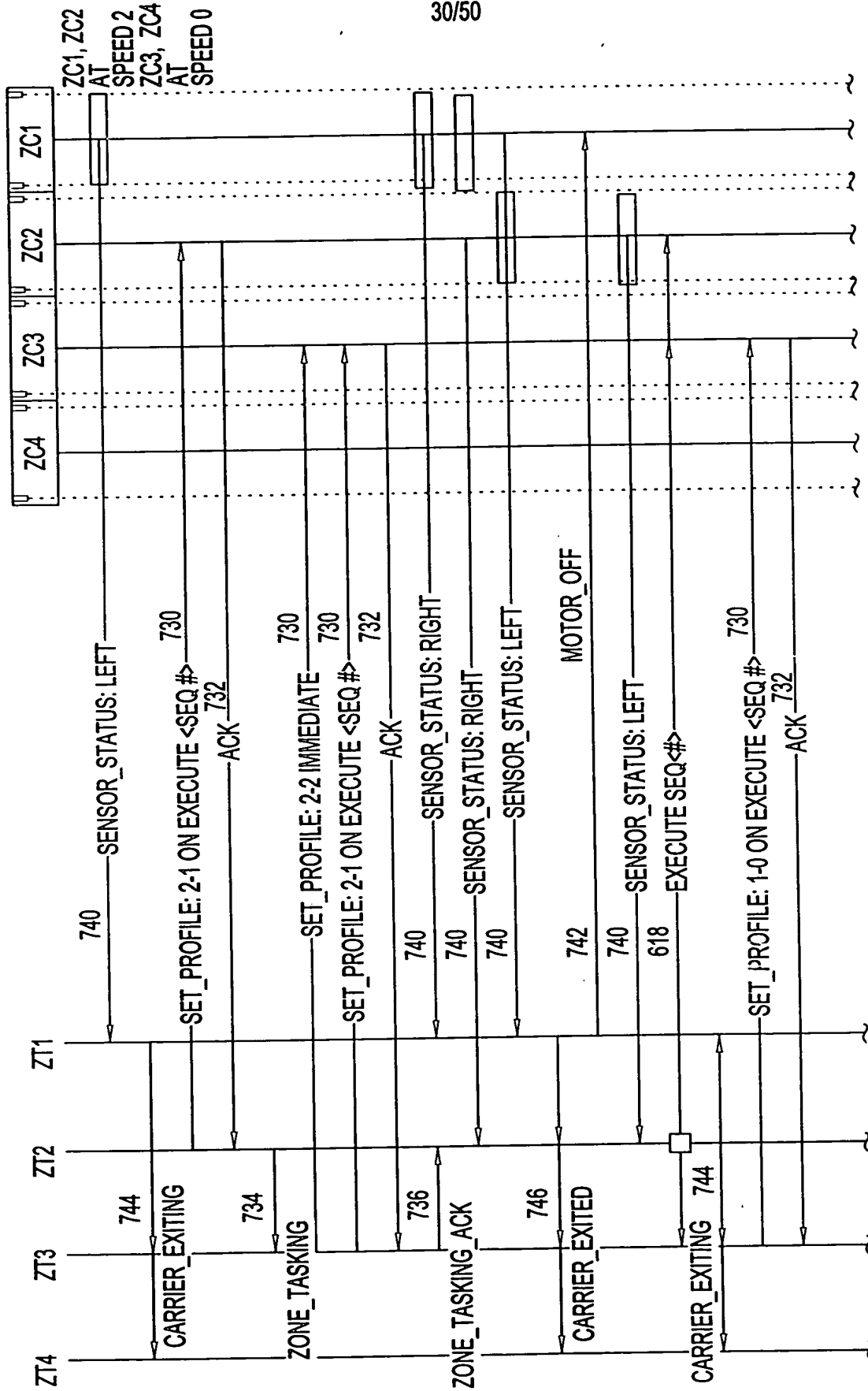


FIG. 21C



CONTINUED TO FIG. 22B

FIG. 22A

CONTINUED FROM FIG. 22A

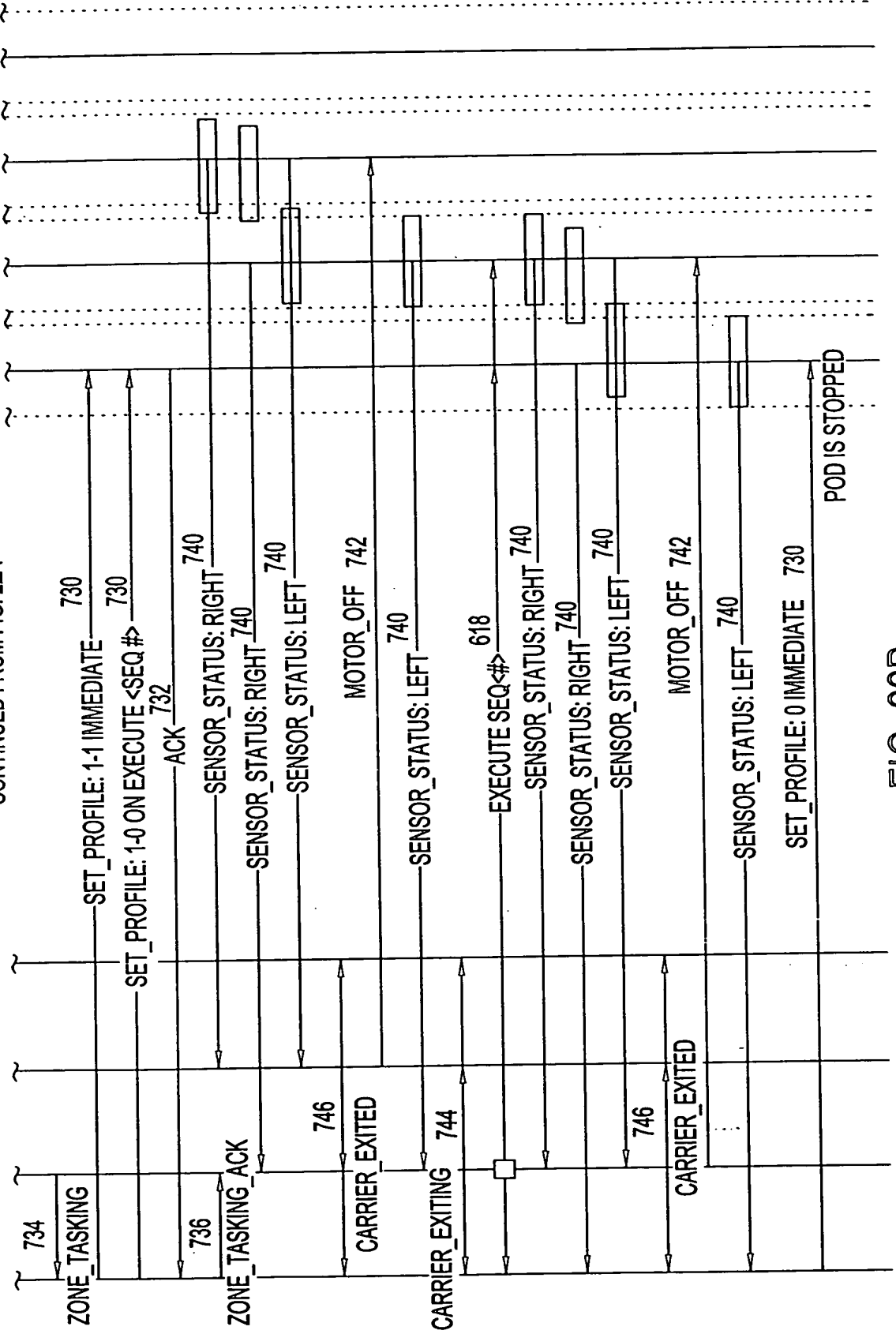


FIG. 22B

FIG. 23A

Timing diagram for the 708B device. The diagram shows the sequence of events and their durations relative to a clock signal. The signals are:

- MATERIAL_DELIVERED
- COMPLETE_HANDSHAKE
- HANDSHAKE_COMPLETED
- FREE_LPTD
- FREE_ZONE
- ZONE_AVAILABLE
- FREE_ZONE
- ZONE_AVAILABLE
- FREE_ZONE
- ZONE_AVAILABLE

The diagram illustrates the timing relationships between these signals, showing the duration of each event and the sequence of operations. The signals are labeled with their respective names and the duration of each event is indicated by a horizontal line with arrows at both ends.

MATERIAL DELIVERED

FIG. 23B

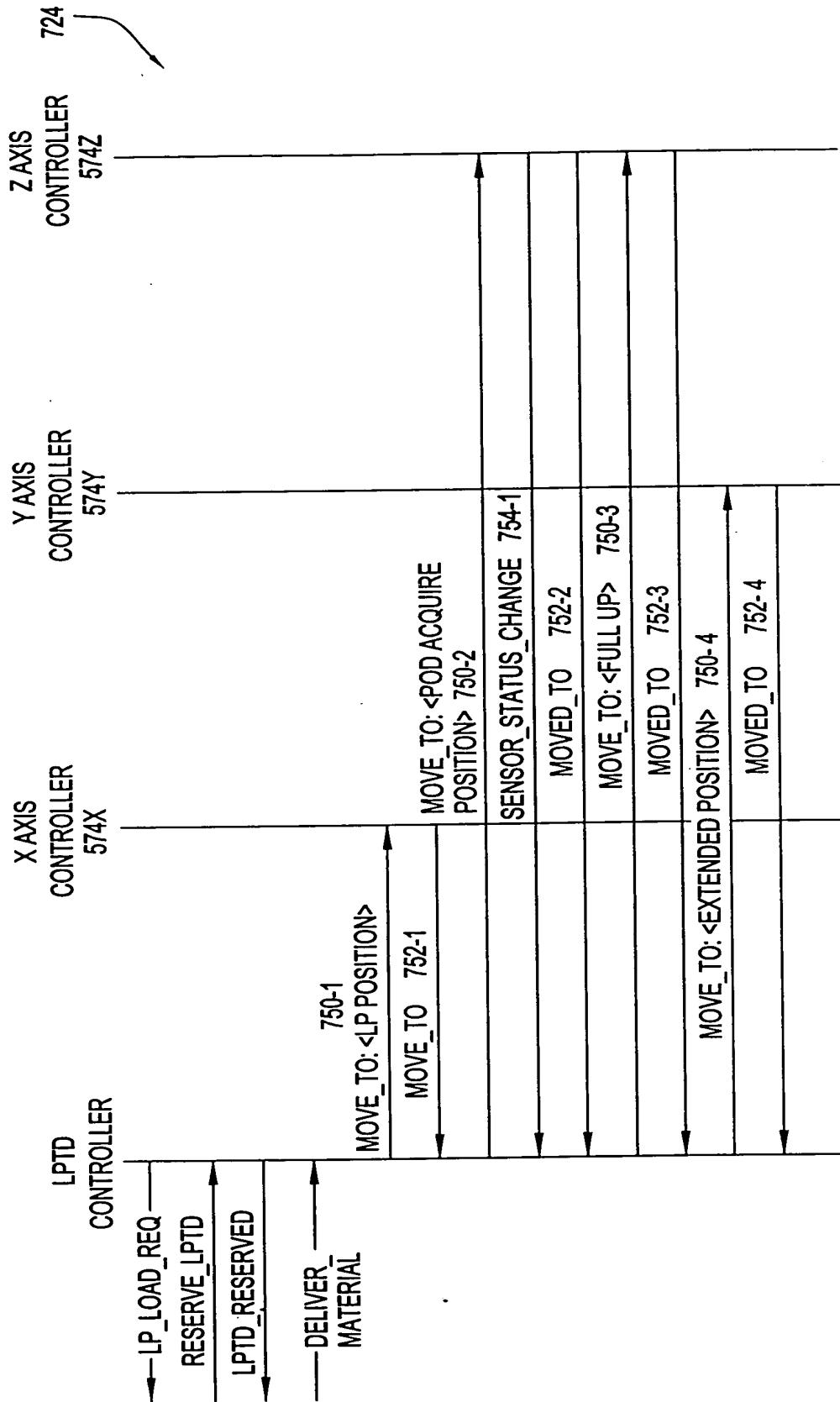


FIG. 24A

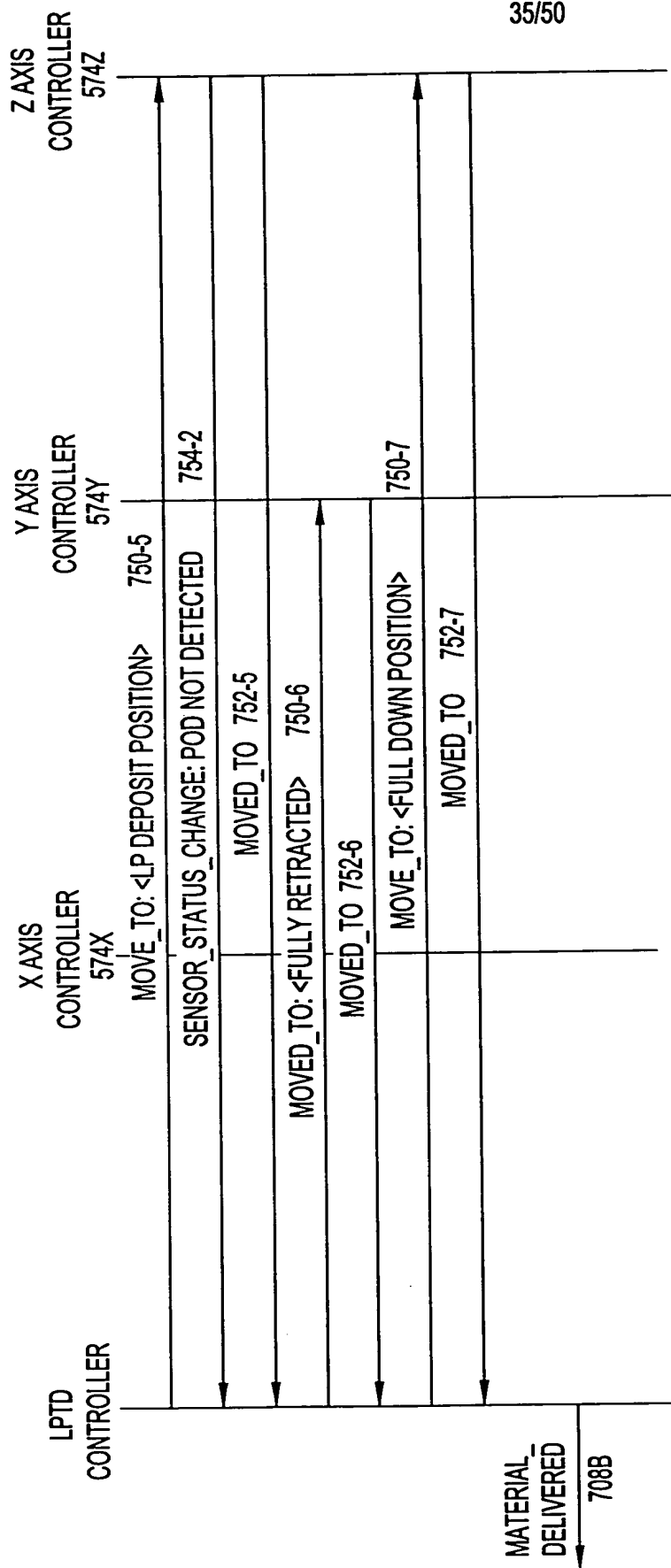


FIG. 24B

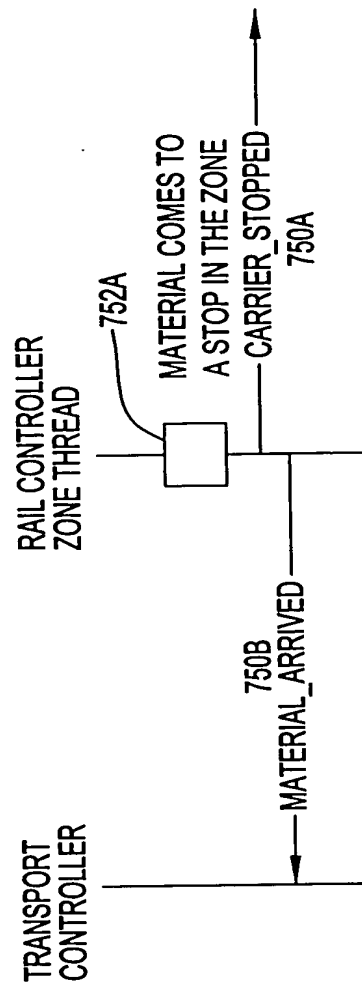


FIG. 25

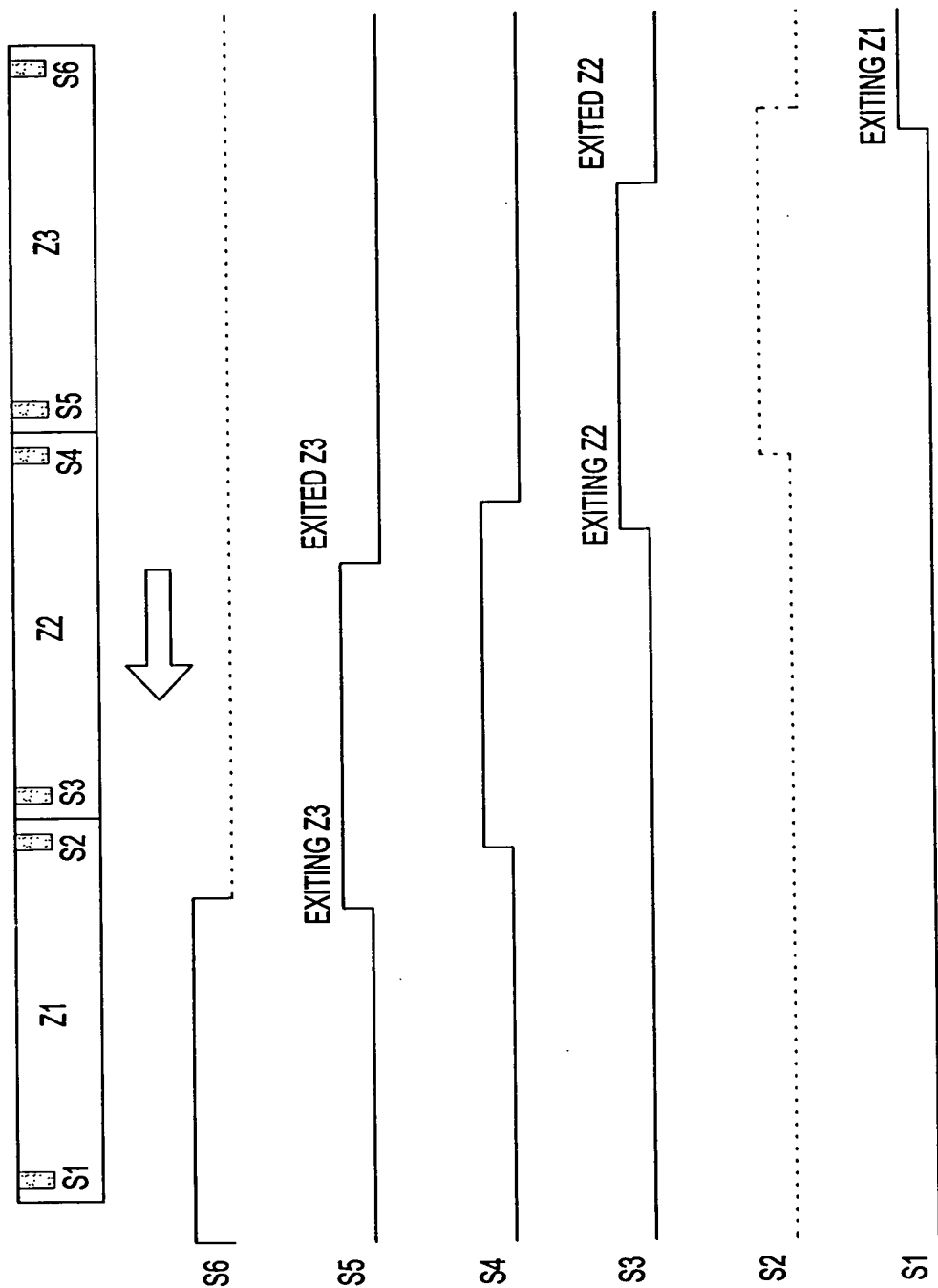


FIG. 26

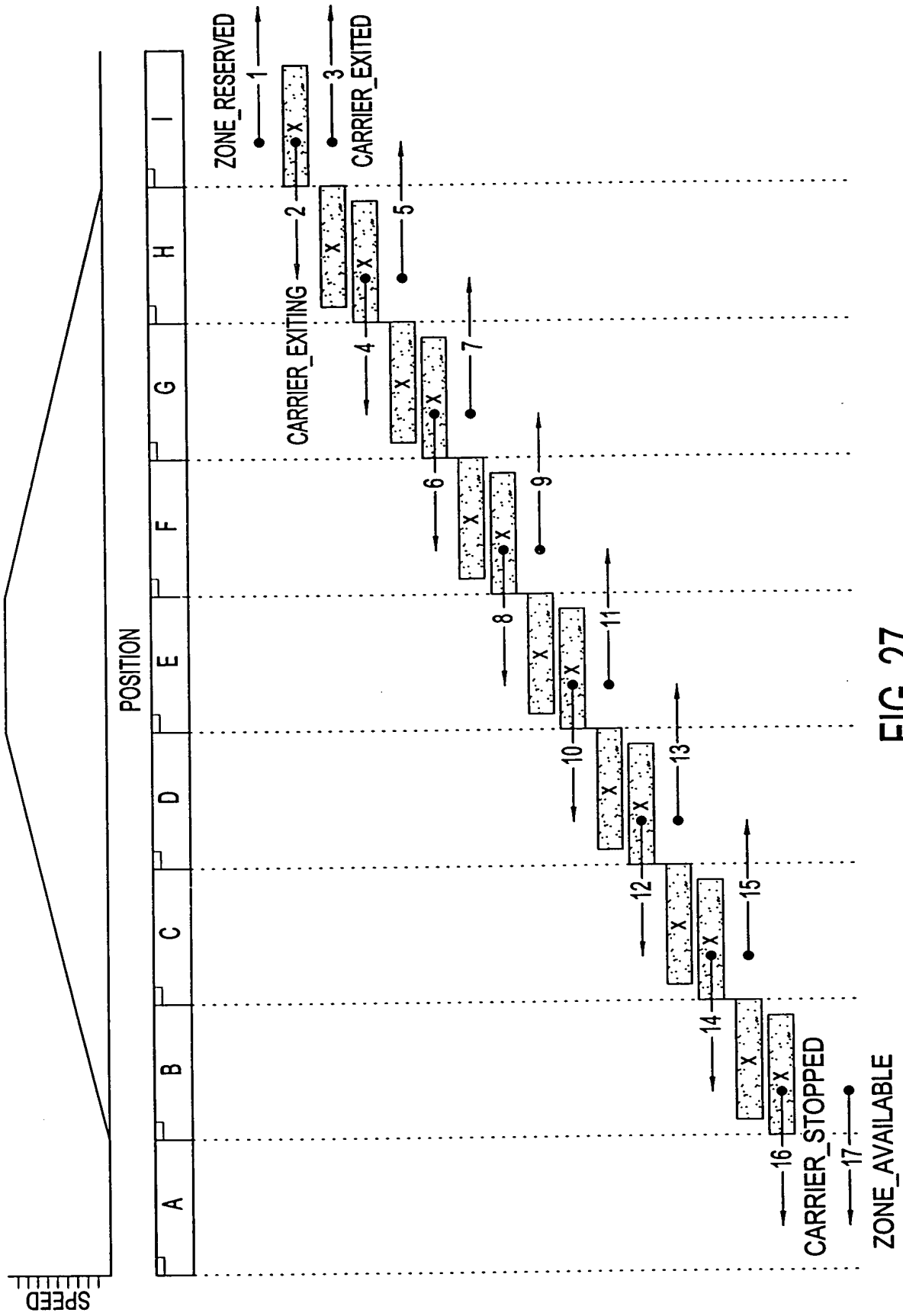


FIG. 27

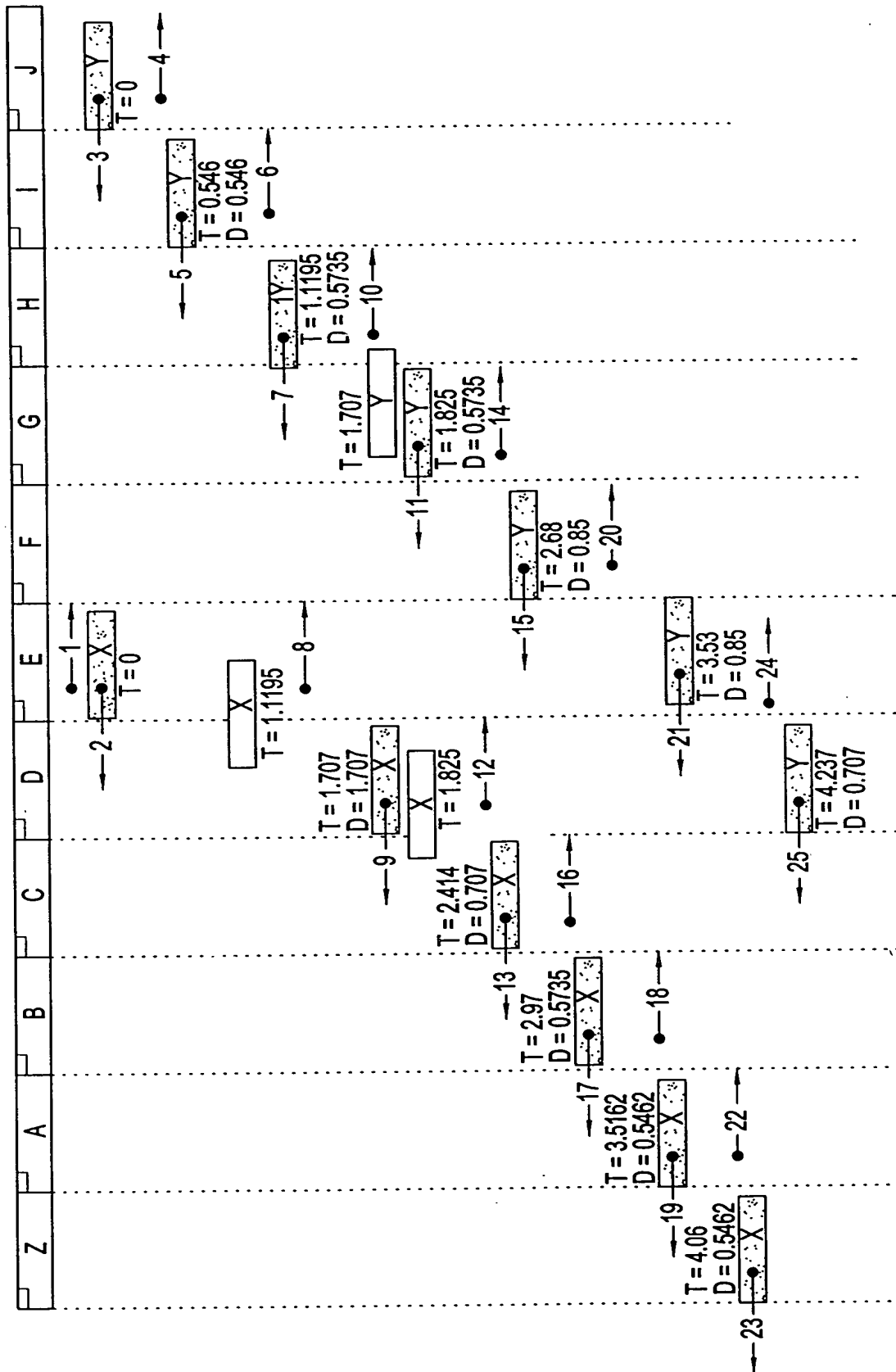


FIG. 28

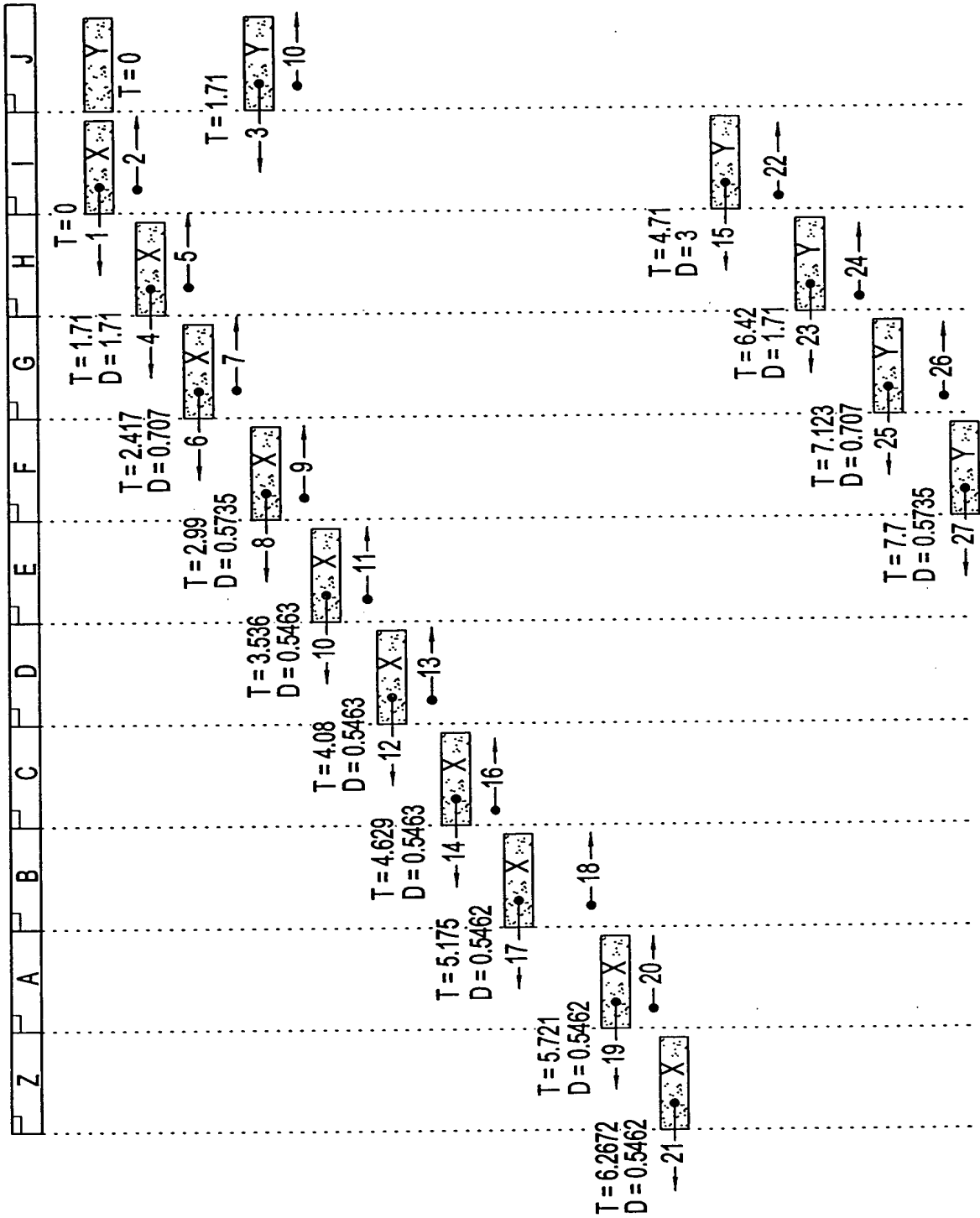


FIG. 29

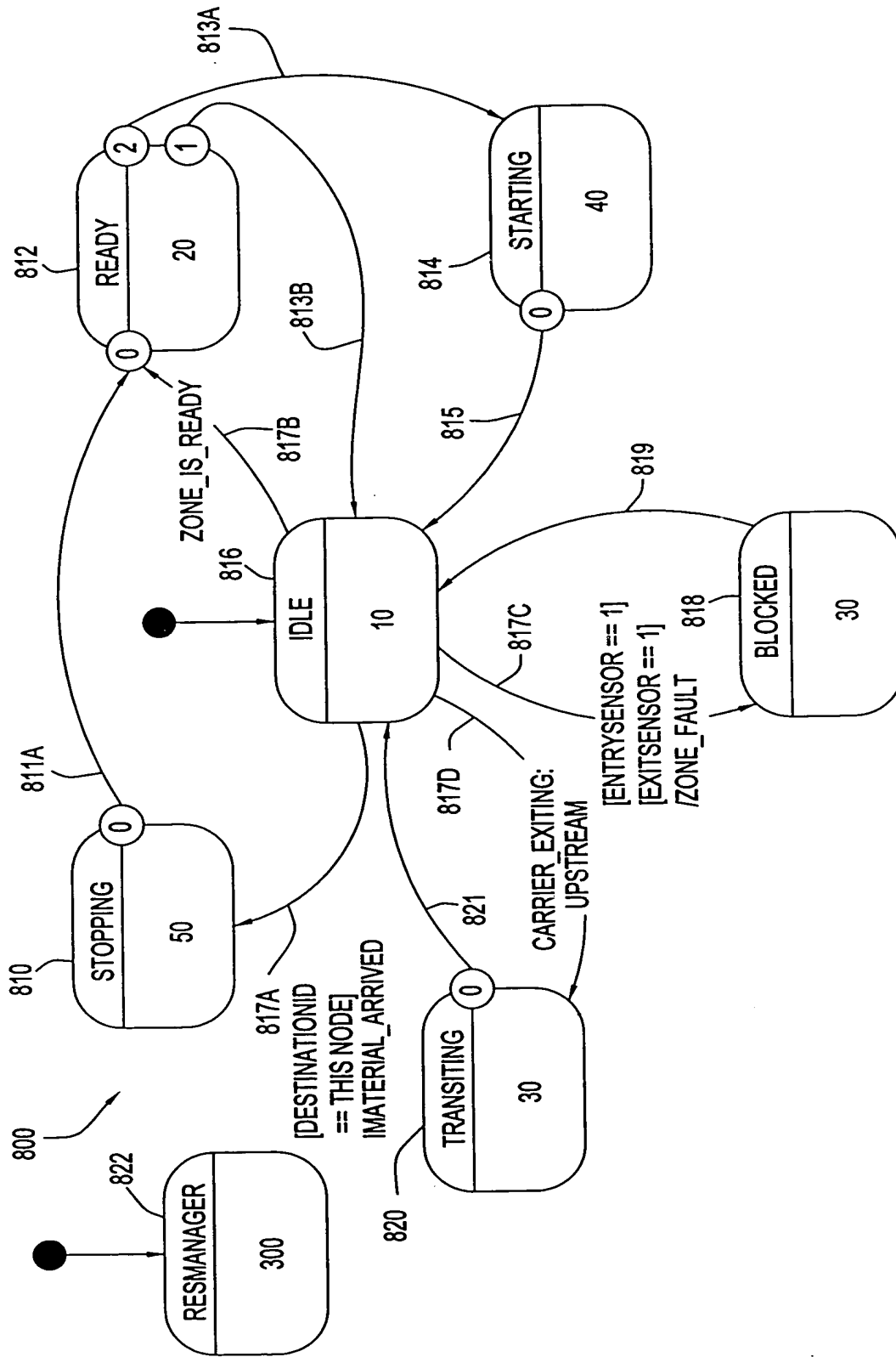


FIG. 30

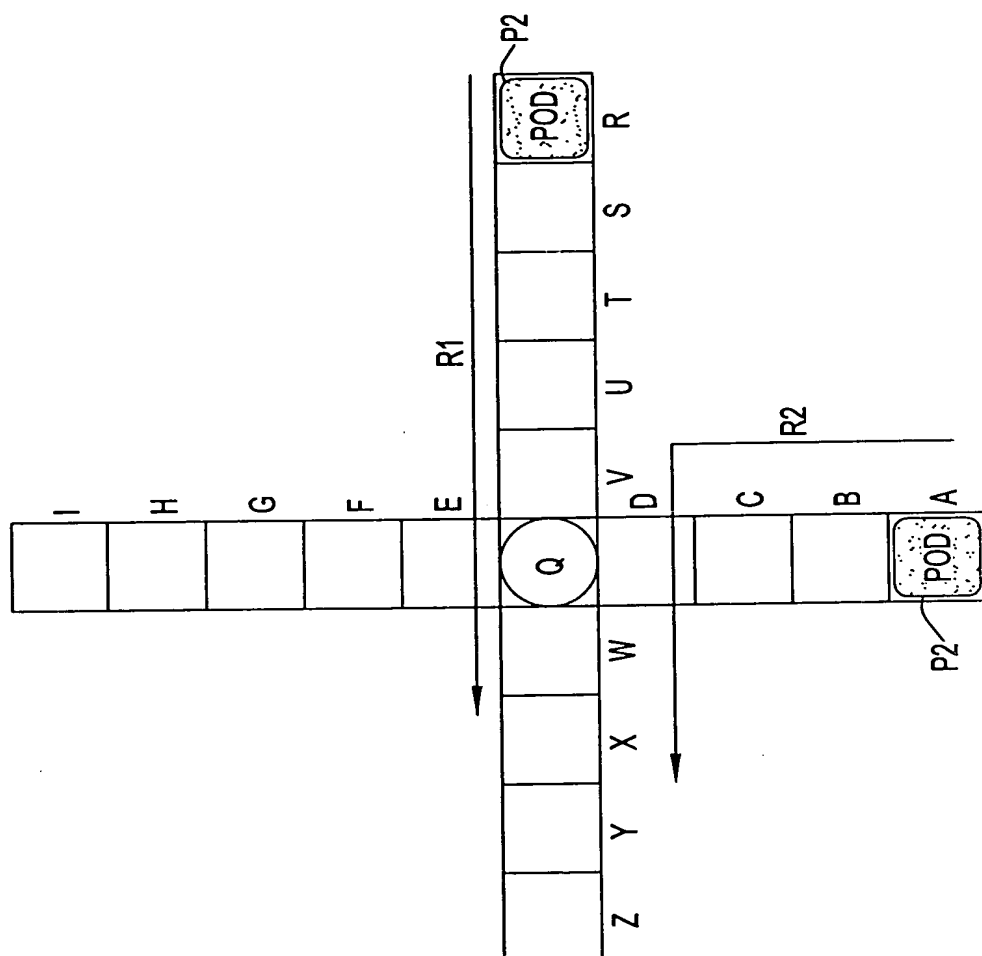


FIG. 31

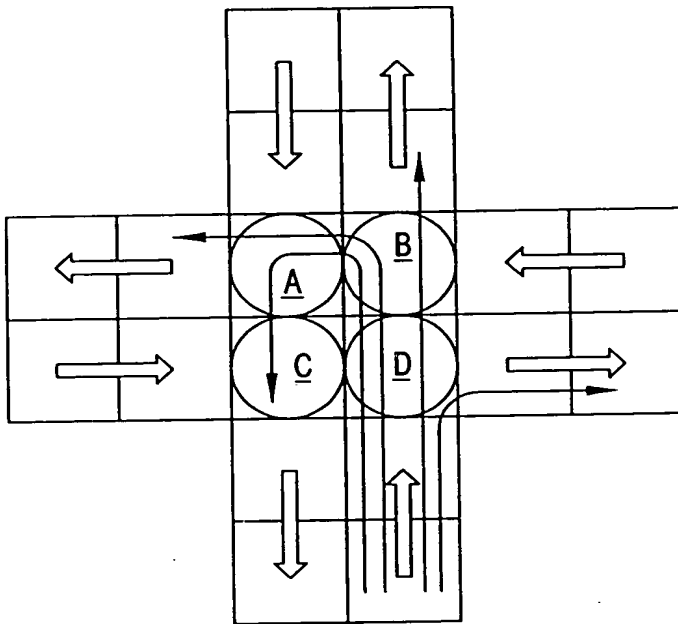


FIG. 33A

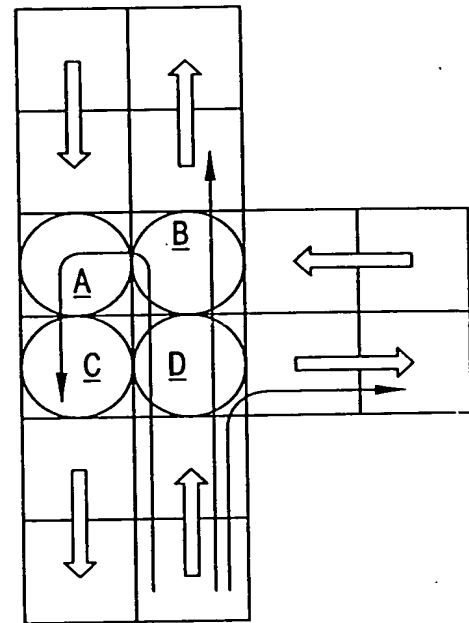


FIG. 33B

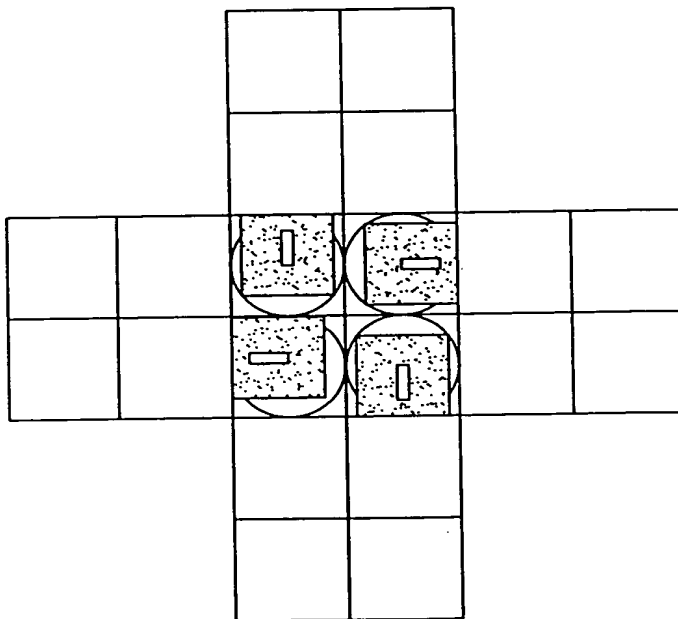


FIG. 33C

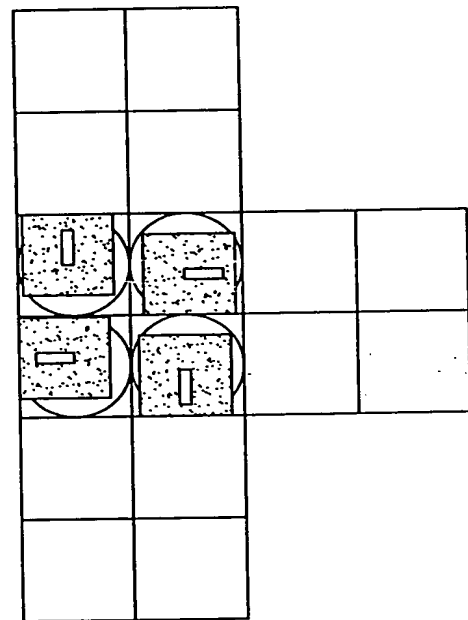


FIG. 33D

ROUTE DISCOVERY EXAMPLE:
PHYSICAL ZONE LAYOUT

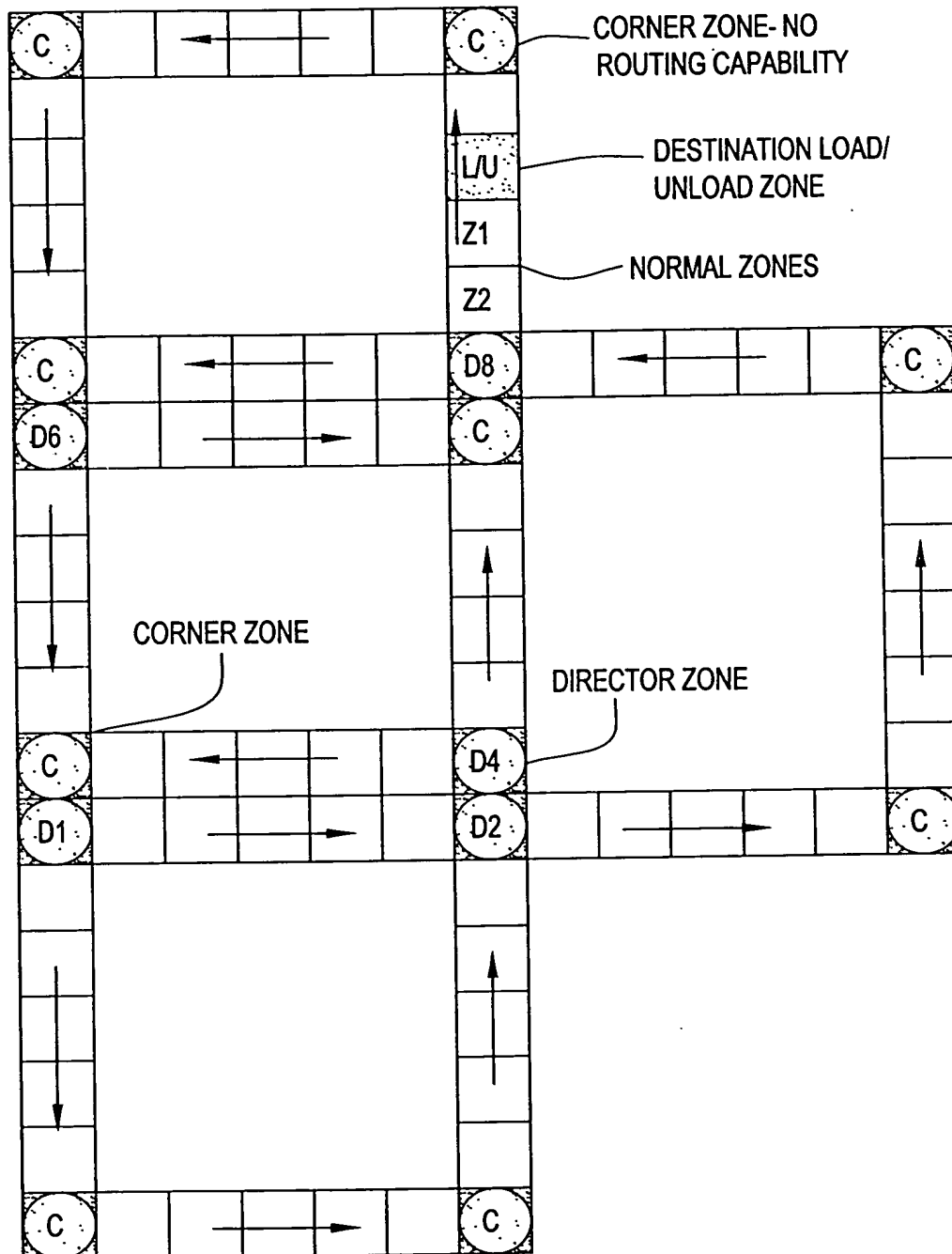


FIG. 34

ROUTE DISCOVERY EXAMPLE:
UPSTREAM ZONE CONNECTIVITY

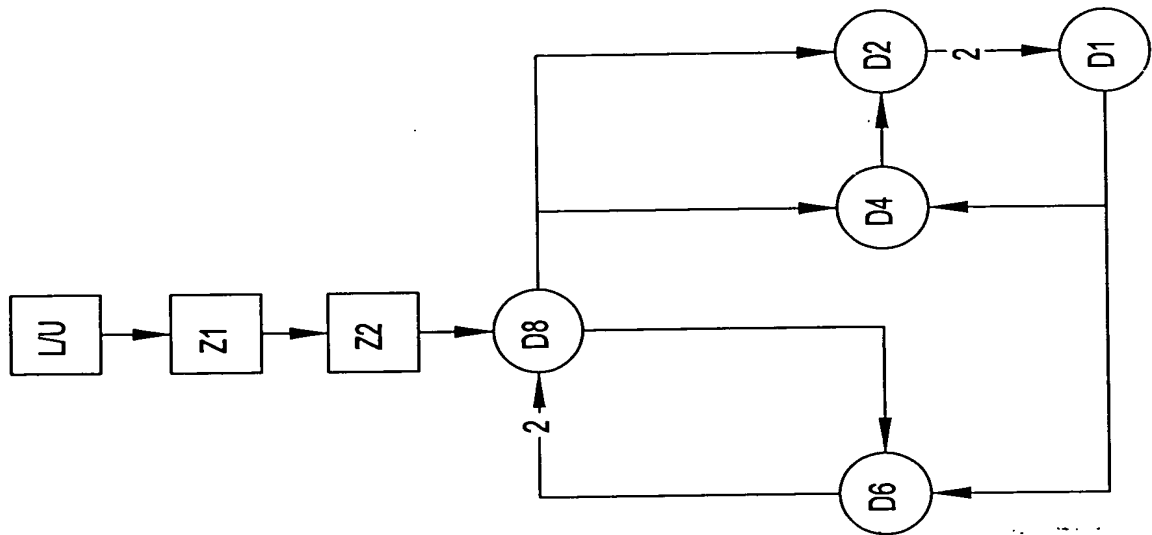


FIG. 35

ROUTE DISCOVERY EXAMPLE:
PHYSICAL ZONE LAYOUT

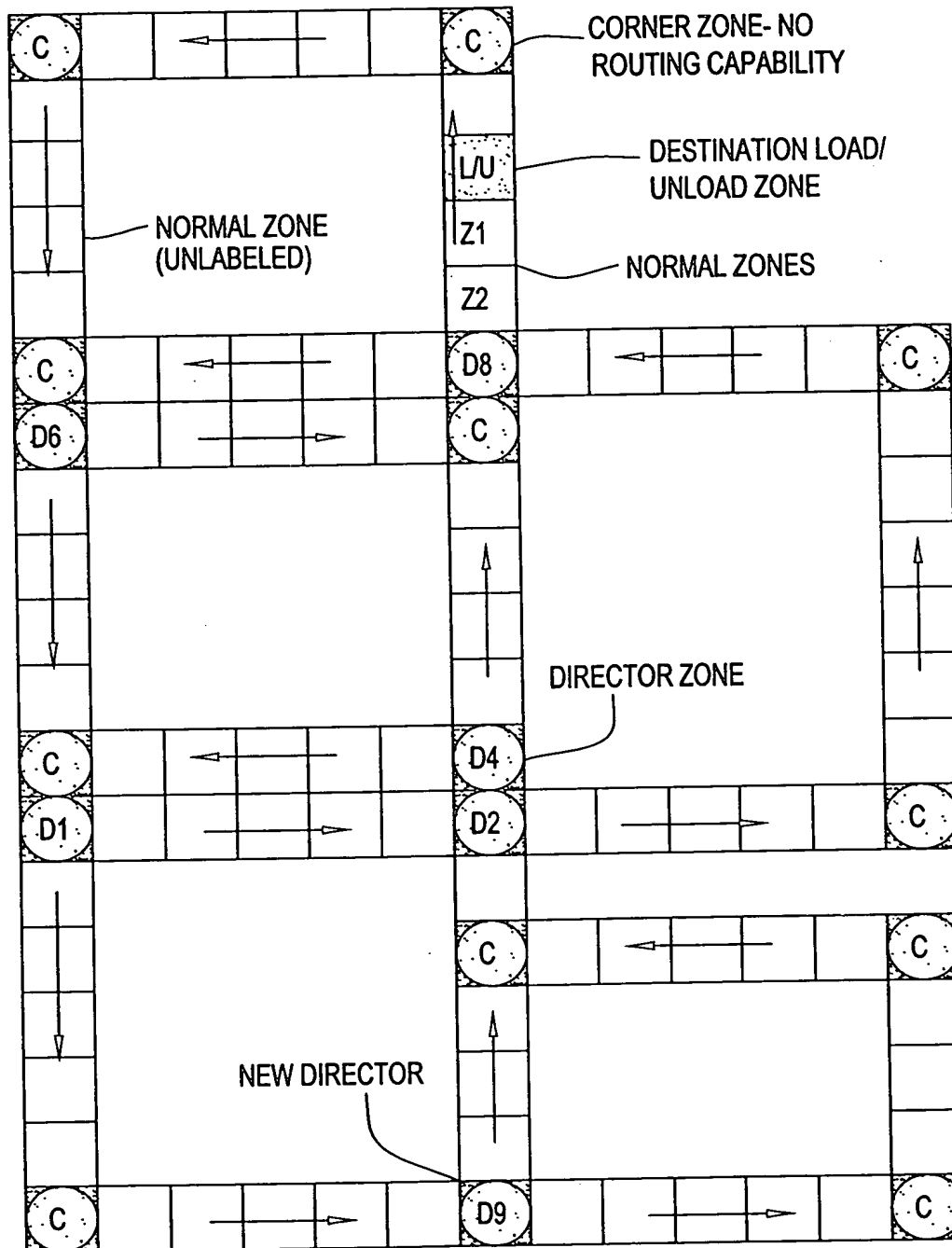


FIG. 36

FAILED NODE:
EXAMPLE LAYOUT

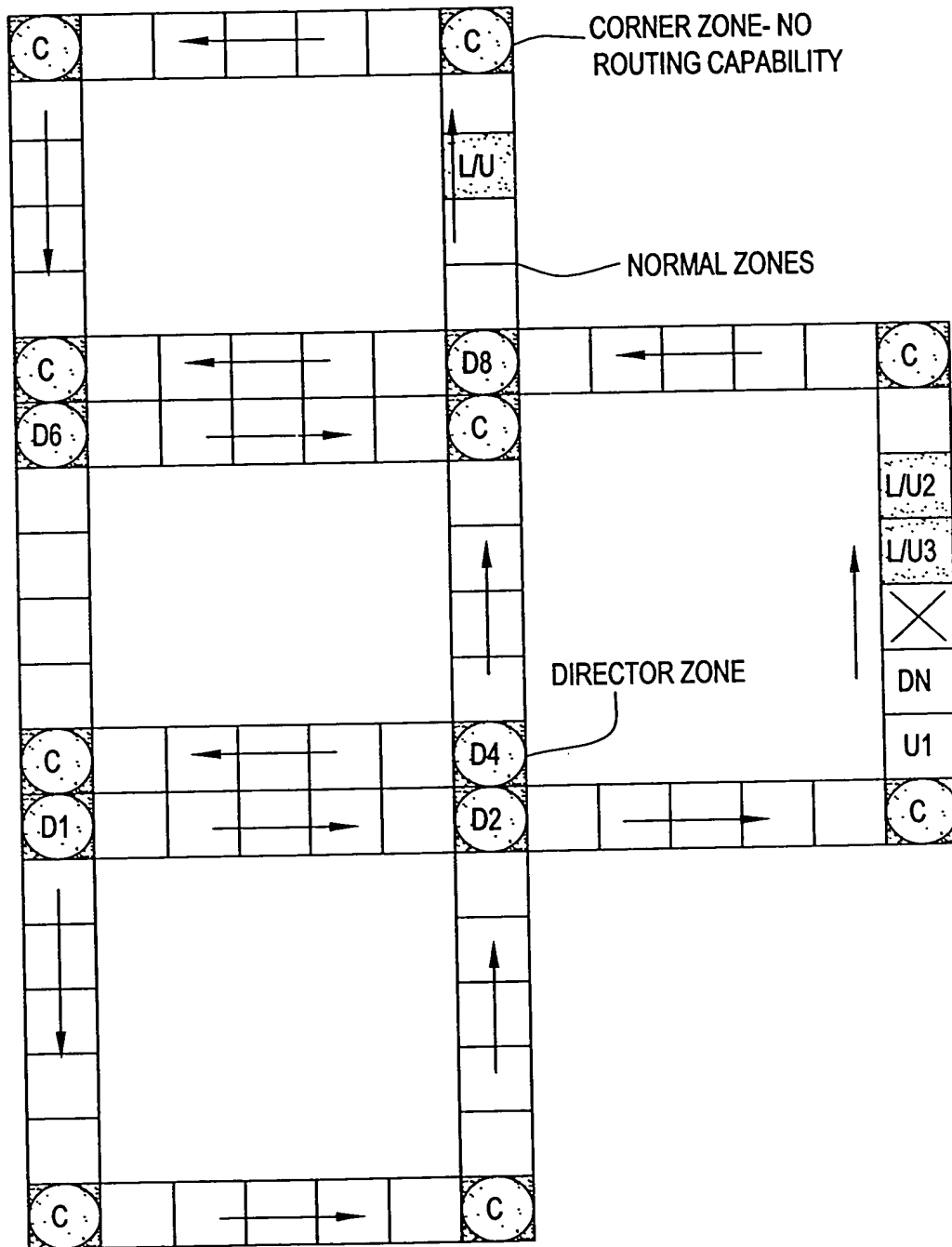


FIG. 37

FAILED DIRECTOR:
EXAMPLE LAYOUT:

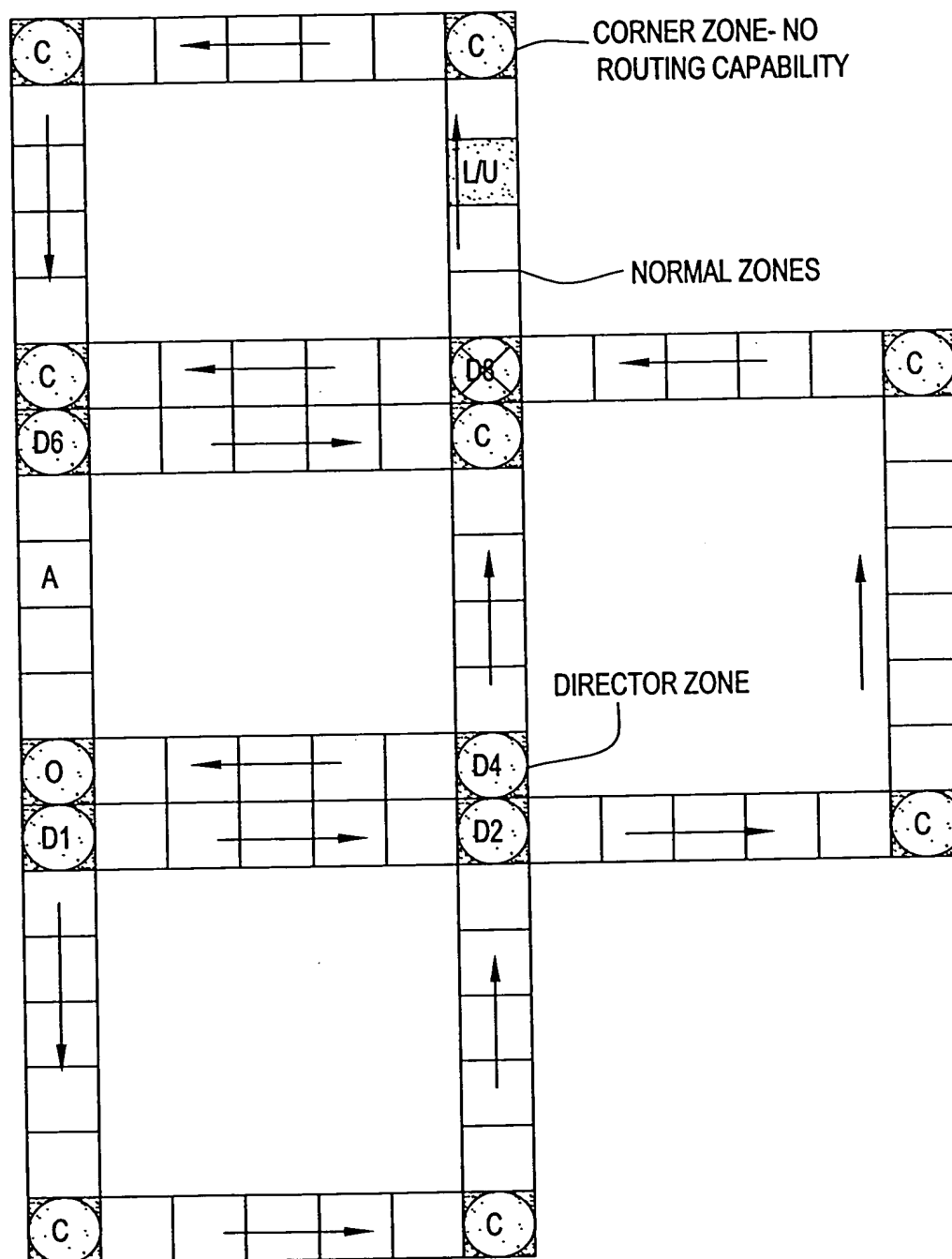


FIG. 38